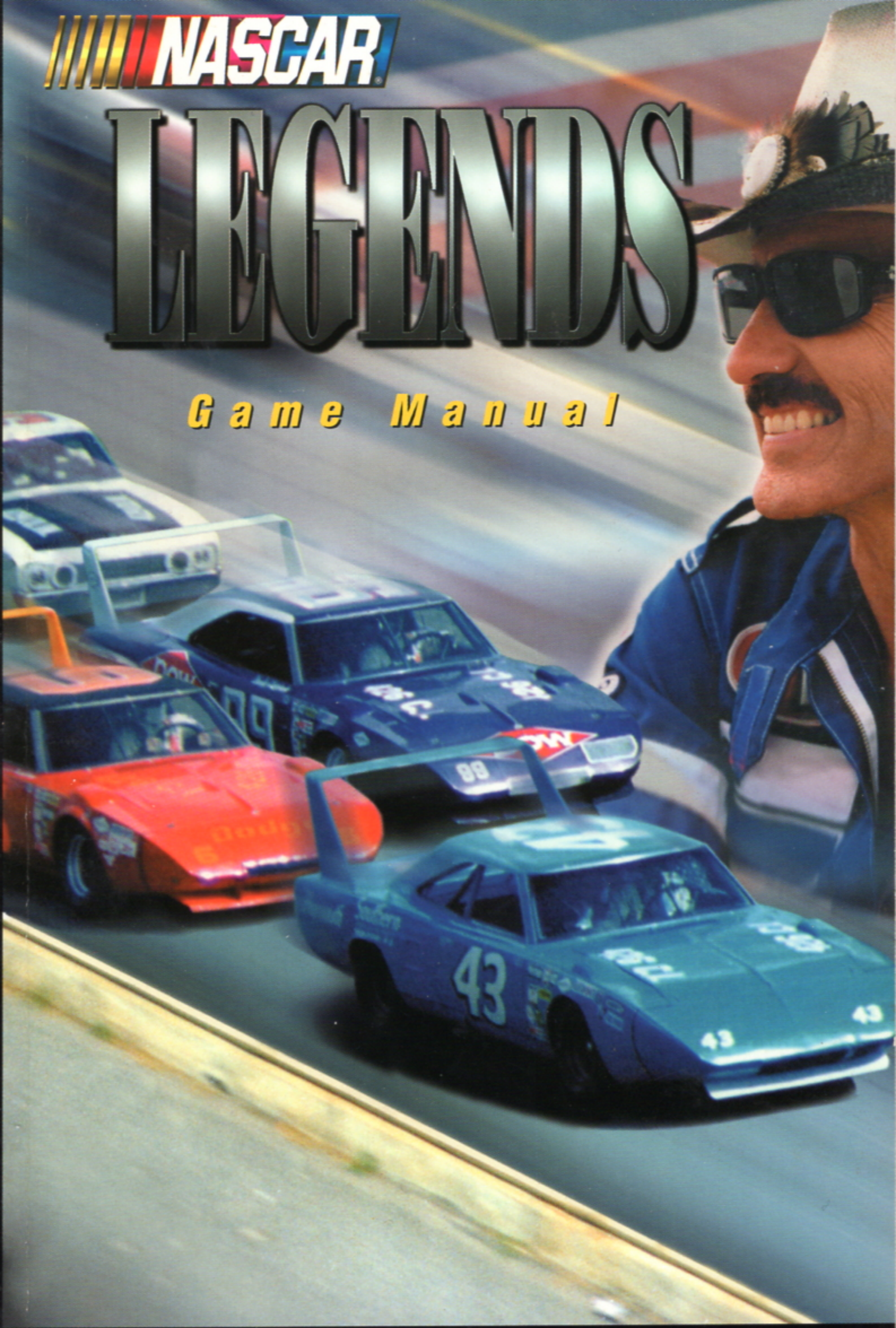

NASCAR LEGENDS

Game Manual

SIERRA SPORTS

PAPYRUS

NASCAR® Legends

from

Papyrus Design Group, Inc.

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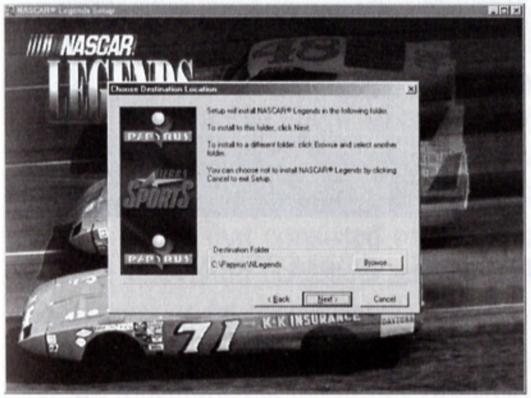
Installation

Close all other programs before you begin installing NASCAR Legends. Place the CD ROM disk in your drive. The installation process should begin immediately. If it does not, click on the START button and choose RUN. Type D:\SETUP (substitute "D:" with the drive letter of your CD ROM drive) and choose OK. The installation wizard will now begin.



Choose Destination Location

Setup will install NASCAR® Legends in the following folder.

To install to this folder, click Next.

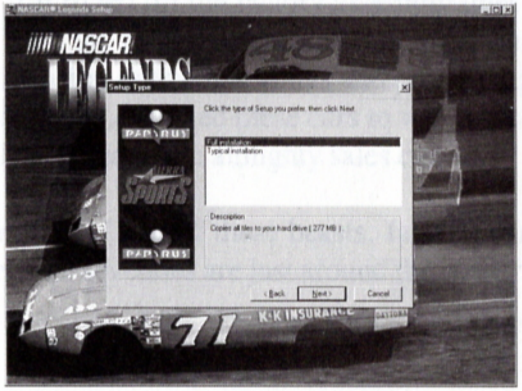
To install to a different folder, click Browse and select another folder.

You can choose not to install NASCAR® Legends by clicking Cancel to exit Setup.

Destination Folder: C:\Papyrus\NLegends

After a brief system test is performed by the installation program, choose the drive and directory (folder) that you'd like to place NASCAR Legends in on your system. Use the default path, or click on the BROWSE button to create your own.

Choose the installation method you'd prefer. The Full installation requires approximately 260 megabytes of hard drive space. The Typical installation only consumes about 100 megabytes of drive space.



Setup Type

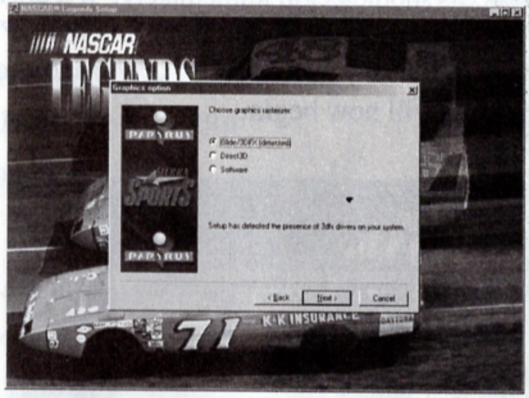
Click the type of Setup you prefer, then click Next.

Full installation (selected)
Typical installation

Description: Copies all files to your hard drive (277 MB).

Installation- Continued

The installation program will guide you through the process of choosing which graphic acceleration card you'd like to use, and the quality of sound you'd prefer.


NASCAR® Legends Setup

Graphics option

Choose graphics hardware

● Glide/3DFX (detected)
○ Direct3D
○ Software

Setup has detected the presence of 3dfx drivers on your system.

If you do not own a supported Voodoo or D3D graphics accelerator card, choose 'Software' as your acceleration method.

That's all there is to it!

Introduction

The '70 season had many unique facets that you'll discover in this simulation. There were it's tracks, such as Bowman Gray Stadium, a quarter-mile bullring surrounding a football field, and Riverside, a twisty, hilly stretch of California real estate that demanded a pretty good understanding of trailing throttle. There were the drivers, many of them still holding down nine-to-five jobs during the week while competing part-time as finances would allow, at NASCAR's highest level- the Grand National division. The 1970 schedule was a grueling 48-race affair that consisted of a curious mix of track types and locales, television contracts and market sizes having no bearing whatsoever on its conception.

But the most alluring detail of a return to 1970 probably lies within the cars themselves. Beefy V-8 hemi engines, long wheelbases and bias-ply tires. Cars that still rolled off the factory assembly lines, rather than getting built from the ground up in some racing shop. Sleek body lines, some featuring outlandish wings and protruding nose pieces. Detroit automakers designed these cars to win races- and winning races directly equated to the almighty sales curve.

So, slide through the window of one of these beasts, fasten your seatbelt and turn the page…the seventies are just around the corner!

Welcome to 1970.

Excitement Rises As Drivers Prepare To Take The Green Flag.

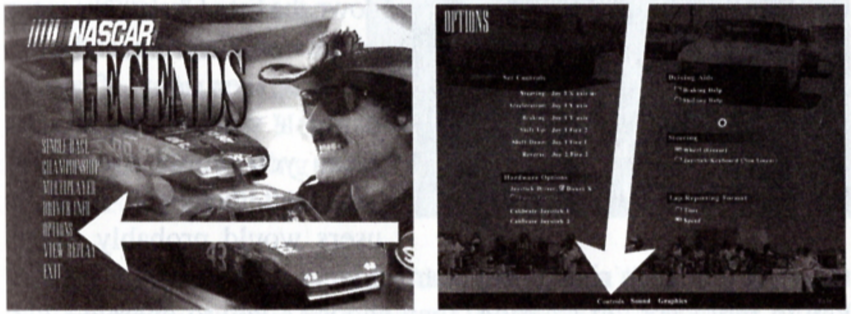
Welcome to the NASCAR Grand National Circuit! You'll soon be squaring off against the best stock car drivers the world has to offer, but first things first- get your controller (joystick, steering wheel, etc.) set up and calibrated. After that, you may want to take a look at what this manual says about optimizing your computer to achieve its best performance for NASCAR Legends. What you do after that is up to you. There's a lot of information in this book, so you may want to keep it handy and refer back to it from time to time…after all, if you're going to compete against the factory boys, you'll need all the help you can get!

Controller Calibration

Getting Your Wheel Or Joystick Set Up

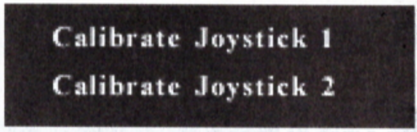
Step One: Before you launch NASCAR Legends, plug your joystick, wheel, gamepad or other computer game controller into a game port on the back of your computer.

Step Two: Launch NASCAR Legends. From the Main Menu, click on Options. If the Controls tab is not already selected, click on it to reveal the Controls Menu (as indicated by arrows below).

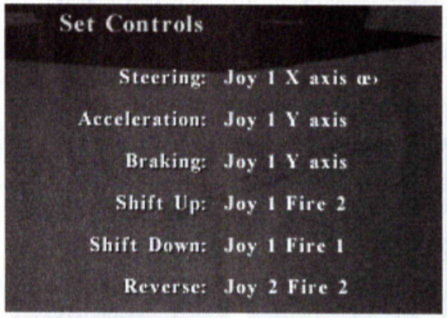


Step Three: Choose a joystick driver. If your controller has been selected and configured in Windows 95/98, you can use the DirectX joystick driver. If your controller is not configured in Windows 95/98, choose the Papyrus joystick driver instead. This is a generic joystick driver; later on, you may want to experiment with both joystick drivers to find the one that gives you the best feel.

Step Four: Calibrate your controller(s) by first clicking on the Calibrate Joystick 1 button. Follow the prompts on the screen, moving your controller through all of its limits, then pressing the Enter key. If your control method requires the second joystick input, click on the Calibrate Joystick 2 button and repeat the calibration process.


Calibrate Joystick 1
Calibrate Joystick 2

Step Five: Now that your controller is properly calibrated, you need to set each control. This is simply the process of telling NASCAR Legends how you're going to control the stock car with your device: What keyboard keys/movements will shift gears, steer the front wheels, brake, etc. Beginning with the top control item, Steering, work your way down the list. Click to the right of the word Steering, and steer left first, then right. If you're using a wheel, this would mean you would turn your wheel left, then right. Joystick users would probably move the stick left, then right. Keyboard drivers (ouch!) would press a key to represent left steering, then choose a key to operate right steering.

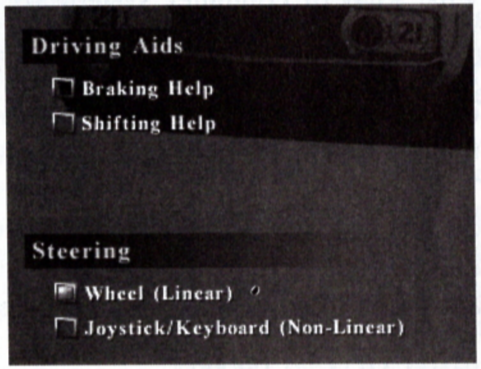

Set Controls

Steering: Joy 1 X axis ↔
Acceleration: Joy 1 Y axis
Braking: Joy 1 Y axis
Shift Up: Joy 1 Fire 2
Shift Down: Joy 1 Fire 1
Reverse: Joy 2 Fire 2

Now, click on the next item, Acceleration. If you have a wheel/pedal set, step on the accelerator pedal to identify what you're going to use for a throttle. If you're using a joystick, press one of its buttons or push it forward (or make any other movement with it) to identify its movement as your accelerator. Planning to use the keyboard for your accelerator? No problem, just press the key you want to use as the accelerator.

Continue down the list, item by item until you've told NASCAR Legends how you want each control to work. Once you're finished, there's no need to do anything else- your selections will automatically be saved in a file, so next time you launch NASCAR Legends, your controls and preferences will still be set!

Now take a look at a few other items on the Controls Menu. **Braking Help** keeps you from driving too hard into the corners; as you approach each turn, the brakes will begin to engage on their own in order to prevent you from wiping out. With Braking Help turned on, your stopping distances will be much greater than those of a skilled driver who isn't using Braking Help.


Driving Aids
☐ Braking Help
☐ Shifting Help

Steering
☑ Wheel (Linear)
☐ Joystick/Keyboard (Non-Linear)

Shifting Help allows you to decide whether you'll shift your own gears manually, or have the computer handle this task for you. With Shifting Help enabled, the computer will automatically upshift or downshift based on your rpms.

If you really want to be competitive against that Allison Fella, you'll need to disable Braking and Shifting Help in due time. These aids are helpful for beginners, but can reduce your overall speeds.

Optimizing Your Computer For NASCAR Legends

Getting The Most From Your System

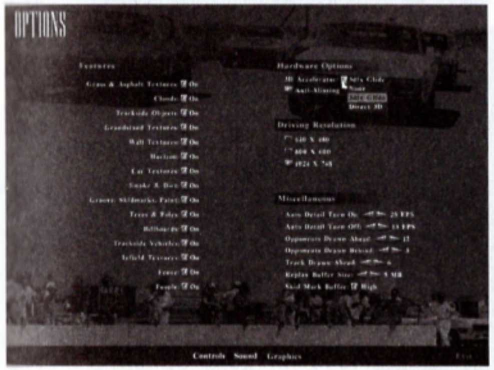
Smooth Graphics. Yeah baby, that's what you want. No matter what kind of computer system you've got, achieving optimal performance from your computer is essential in order to fully enjoy NASCAR Legends. You can't really capture the sensation of driving one of these behemoths at over 160 mph if your computer is struggling to keep up with the demands of its software.

So, the next few pages provide you with everything you need to know about running NASCAR Legends with the best possible animation speed for your computer system.

Graphics Acceleration

Let's rap for a second. The graphics in NASCAR Legends are really groovy, but without a graphics accelerator card in your computer, you may not be able to fully enjoy them. If you have one installed, enable it by choosing the appropriate accelerator on the Graphics Menu (choose Options from the Main Menu, then click on Graphics). "Hey man, if I buy a Voodoo board or D3D card for my computer, will I see faster framerates?" This question is asked almost daily in computer newsgroups on the Internet. The answer is, more than likely, yep. Accelerator cards have special memory set aside for the sole purpose of holding all of those spiffy textures and graphics on your screen, so your basic video card and computer's motherboard aren't saddled with this chore. This leaves the computer free to process all of the other things going on- sound effects playing back, files being opened, menu actions, and so on.

"Will I notice a difference in graphic quality?" This question usually follows the first one, and the answer to it too, is yes. Definitely. These accelerator cards all bring new graphical features to the table, features you won't enjoy without a Voodoo or D3D board. Things like translucent smoke, anti-aliasing, and texture-smoothing are all handled by a high performance 3D accelerator board. They probably won't make your word processor 'process' any faster or prettier, but NASCAR Legends will take full advantage of a 3D accelerator's horsepower.

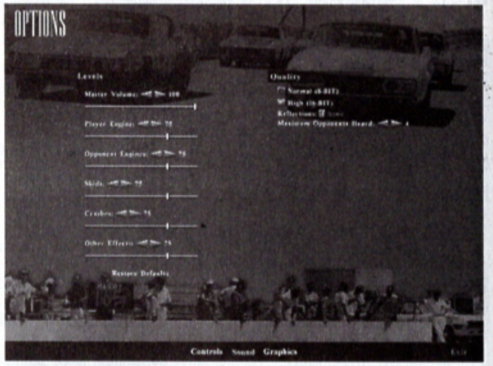


Go to the Controls Menu to set up your accelerator board. Under the Hardware Options area, choose the type of card you have installed, then restart NASCAR Legends. Now your accelerator board will be used, and its information will be saved in a file. You only need to do this the first time you set up your accelerator board.

3D Sound

NASCAR Legends features three-dimensional, positional sound. If you have a 3D audio card that supports A3D 2.0, you can enjoy

richer sound effects that include reflections (sounds that bounce off of other objects, such as how the noise of your engine would sound as it ricochets off of the wall next to the car). Without such an audio board, you may need to limit the number and quality of sounds that are playing back.



Use the Sound Menu (go to Options from the Main Menu, then click on the Sound button) to select the number of other cars you want to hear at any one time, and the overall quality of sounds. Remember, everything that the program has to do requires some computer power. If you're not enjoying fast, smooth animation, you may need to reduce the load on your system.

Framerate- How To Speed Things Up

If your framerate is too slow when you play NASCAR Legends, here are some things to do to make sure you get the fastest possible animation speed:

1. Install a supported 3D graphics accelerator.

2. Install a supported 3D sound card.

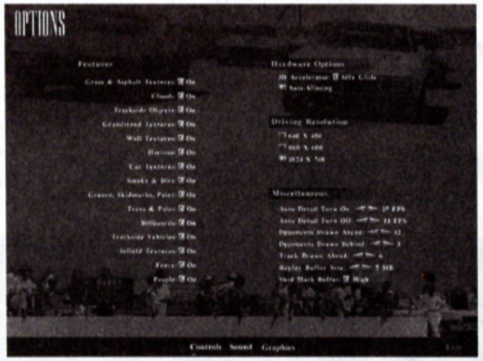
3. Reduce sound quality, or number of sounds heard.

4. Reduce the graphic detail by turning off some texures. Start with the asphalt and crowd textures, they're the largest.

5. Reduce the number of cars drawn ahead or behind you. By only having ten cars drawn ahead, for example, you may get a faster framerate than you would if the computer had to draw twenty cars ahead of you (especially when all twenty cars are tightly spaced together ahead).

6. Reduce the screen resolution. Running in 1024 x 768 hi-res requires more strength from the computer than 640 x 480 does. If your system seems to still struggle, try lowering the resolution.

7. Reduce the 'Track Drawn Ahead' setting. **This will probably have the biggest single impact on framerate.** A value of 1 means that details on things like grandstands will not appear until you are very close to them. A higher value, such as 6 means that you'll see much finer detail even from great distances. Reducing this value can help a slower computer produce a better framerate.

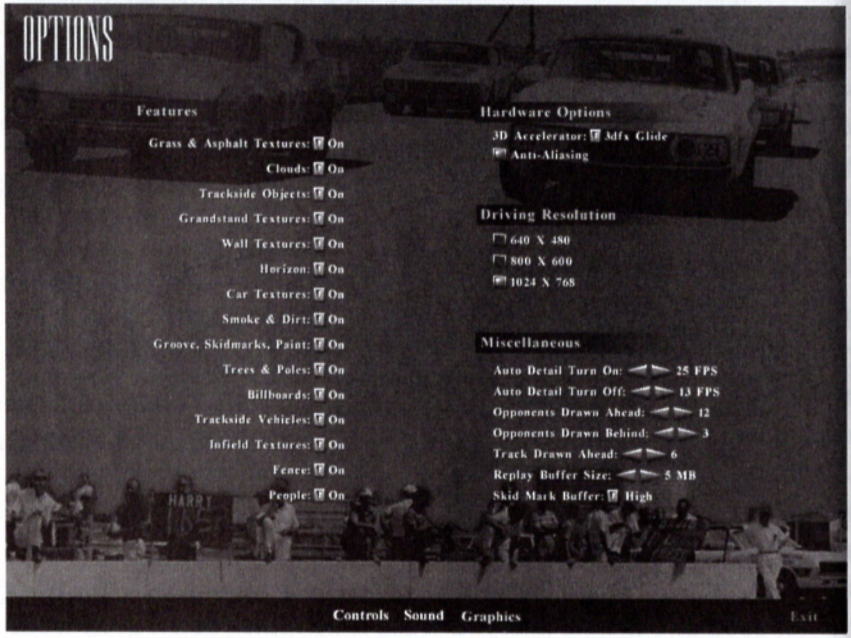


Use the Graphics Menu (from the Main Menu, click on Options, then Graphics) to turn off textures if your framerate isn't satisfactory. You can also set textures to 'Auto,' which gives the computer control over whether they show up or not. If the framerate gets too slow, they'll get turned off to compensate. If the framerate is running fine, they could be switched back on. The computer will constantly check textures that are set to Auto, and turn them on/off as necessary.

8. Drop the Skid Mark Buffer to a lower setting. Skid marks that

occur as you race are stored in a buffer (in other words, an area of memory set aside just for them). When this buffer fills up, the oldest skid marks are removed from memory as new ones are added. Using a smaller amount of memory for the skid mark buffer can help improve framerates, especially if you notice a slowdown in performance everytime you come across some skid marks on the track.

Choosing Graphics Options



Features

Grass & Asphalt Textures: ▣ On
Clouds: ▣ On
Trackside Objects: ▣ On
Grandstand Textures: ▣ On
Wall Textures: ▣ On
Horizon: ▣ On
Car Textures: ▣ On
Smoke & Dirt: ▣ On
Groove, Skidmarks, Paint: ▣ On
Trees & Poles: ▣ On
Billboards: ▣ On
Trackside Vehicles: ▣ On
Infield Textures: ▣ On
Fence: ▣ On
People: ▣ On

Hardware Options

3D Accelerator: ▣ 3dfx Glide
☑ Anti-Aliasing

Driving Resolution

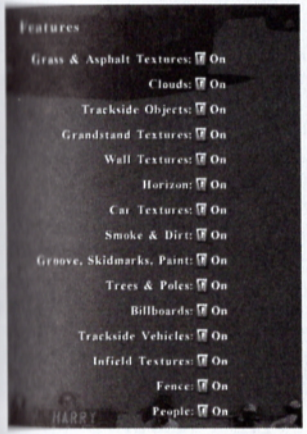
☐ 640 X 480
☐ 800 X 600
☑ 1024 X 768

Miscellaneous

Auto Detail Turn On: ◀ ▶ 25 FPS
Auto Detail Turn Off: ◀ ▶ 13 FPS
Opponents Drawn Ahead: ◀ ▶ 12
Opponents Drawn Behind: ◀ ▶ 3
Track Drawn Ahead: ◀ ▶ 6
Replay Buffer Size: ◀ ▶ 5 MB
Skid Mark Buffer: ▣ High

Controls
Sound
Graphics
Exit

Using the Graphics Menu shown on the previous page (from the Main Menu, choose Options, then graphics) you can adjust the graphic detail to suit your liking. Turn some of the details off if your computer is struggling…but crank up the graphics if your computer can handle it!

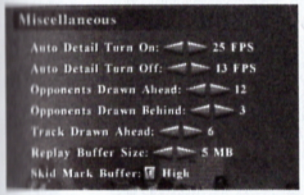


Features

Grass & Asphalt Textures: ▣ On
Clouds: ▣ On
Trackside Objects: ▣ On
Grandstand Textures: ▣ On
Wall Textures: ▣ On
Horizon: ▣ On
Car Textures: ▣ On
Smoke & Dirt: ▣ On
Groove, Skidmarks, Paint: ▣ On
Trees & Poles: ▣ On
Billboards: ▣ On
Trackside Vehicles: ▣ On
Infield Textures: ▣ On
Fence: ▣ On
People: ▣ On

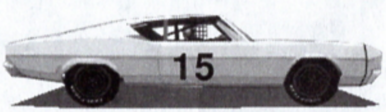
There is a gold button beside each item shown. This button allows you to set each texture to On, Off or Auto. Setting a texture to 'On' will force it to be on *all the time*, while turning textures 'Off' will cause them to never appear. Use the Auto setting if you'd like to let the computer decide what it can handle.

Textures that are set to 'Auto' will disappear if the framerate gets too low, and they'll reappear if the framerate improves to a specific speed. You can decide the limits of when these textures turn on/off by adjusting the 'Auto Detail Turn On and Off' rates. In the picture below, the Auto Detail Turn On rate is set to 25 fps. The Turn Off rate is set to 13 fps. That means that if NASCAR Legends begins to run slower than 13 frames-per-second, textures set to Auto will turn off in an effort to get the animation speed to improve. Using our sample screen settings shown here, once the animation speed (also known as framerate) gets back up to 25 frames-per-second, textures set to Auto will reappear.



Miscellaneous

Auto Detail Turn On: ◀ ▶ 25 FPS
Auto Detail Turn Off: ◀ ▶ 13 FPS
Opponents Drawn Ahead: ◀ ▶ 12
Opponents Drawn Behind: ◀ ▶ 3
Track Drawn Ahead: ◀ ▶ 6
Replay Buffer Size: ◀ ▶ 5 MB
Skid Mark Buffer: ▣ High

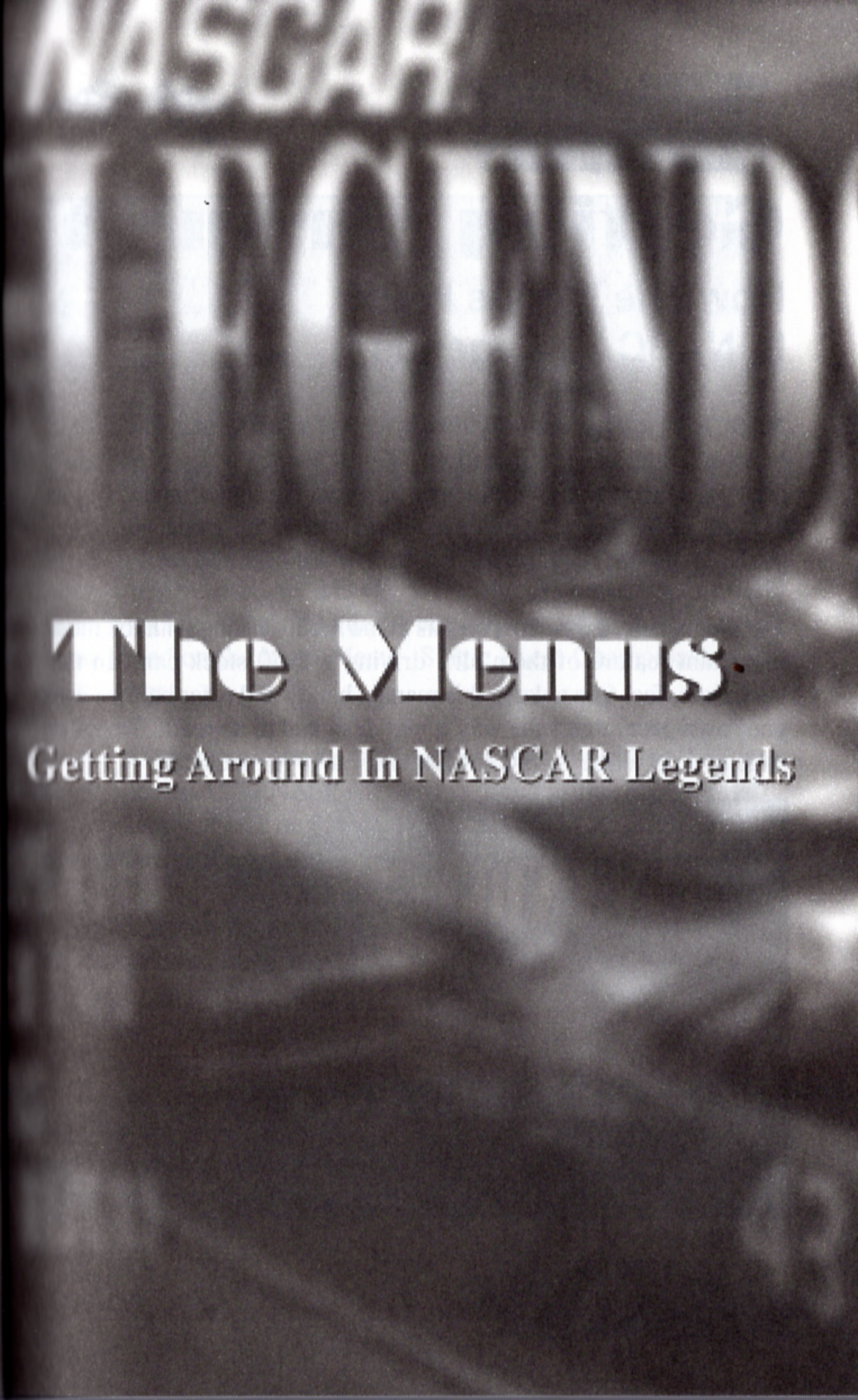


Keyboard Shortcuts For Graphics

You can also turn textures on or off using quick keystrokes as you drive. The keyboard keys for each graphic texture are shown below:

1	Grass, Asphalt, Concrete	on/off
2	Clouds	on/off
3	Trackside Objects	on/off/none
4	Grandstands	on/off
5	Walls	on/off
6	Horizon	on/off
7	Car Textures	on/off
8	Smoke/Dirt	on/off
9	Skid Marks/Racing Groove/Lines	on/off
0	Trees/Poles/Light Towers/Scaffolds	on/off
Ctrl B	Trackside Billboards	on/off/none
Ctrl T	Trackside Vehicles (campers, haulers)	on/off/none
Ctrl I	Infield	on/off
Ctrl F	Fencing	on/off
Ctrl P	People	on/off

Each key or key combination listed above 'cycles' through. For instance, if you press the '3' key on your keyboard, the features on certain trackside objects will disappear. Press '3' again, and the entire objects will disappear. Press '3' a third time and the objects and textures will return. You can keep repeatedly pressing the keys above to turn textures and objects on or off to your liking. Certain gameplay elements, such as the animated flagman, brake markers and blinking trackside caution lights may not be turned off.



The Menus

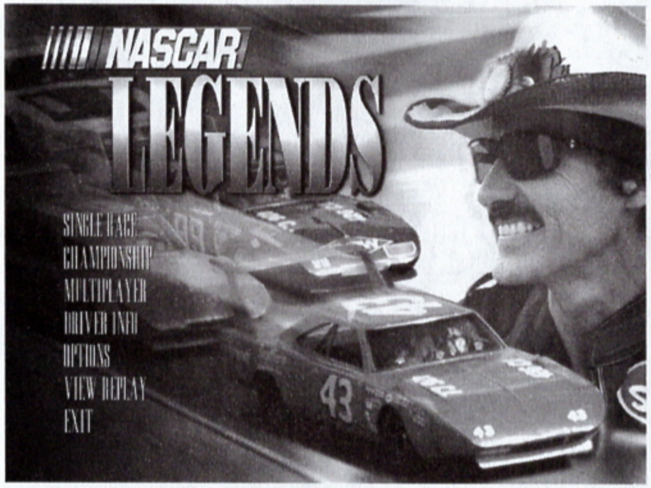
Getting Around In NASCAR Legends

Getting Around

How The Menus Work In NASCAR Legends

NASCAR Legends features an easy-to-use Main Menu which is the heart and soul of the simulation. You'll see the Main Menu each time you launch NASCAR Legends on your computer, and it's very easy to get back to it at any time from within the game (just keep pressing the ESC key until you see the Main Menu again).

We'll cover all of the items on this menu here, starting with the most important feature of them all: driving a 1970 stock car! In the meantime, feel free to keep this manual handy and refer back to it at your own pace, that's the way it was designed to be read. Turn the page to meet a true NASCAR Legend…a 1970 stock car!



Simple Navigation

Esc

Each time you press the ESCape key you back up to the previous menu. You can always return to the Main Menu by continuously pressing ESC, backing up one screen at a time.

Pause

When driving, press the Pause key on your keyboard to freeze the action. Press the Pause key again to resume driving.

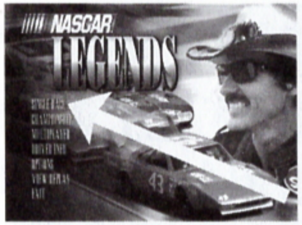
Taking Your First Test Drive

There are several styles of racing in NASCAR Legends, and you can customize each one the way you want. You can select which style of racing you want to do by clicking on one of the first three items found on the Main Menu: Single Race, Championship, or Multiplayer.

Single Races allow you to take on computer-controlled cars that represent real 1970 NASCAR drivers, such as the King himself, Richard Petty. Click on Single Race, pick a track, choose your race settings and prepare to qualify!

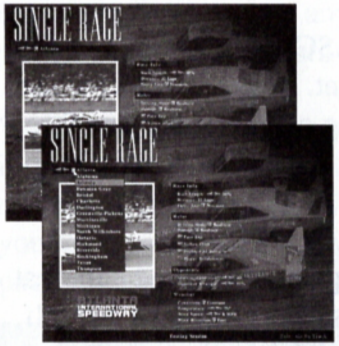
By clicking on Championship, you can relive the entire 1970 NASCAR season- from Atlanta Motor Raceway to Bowman Gray Stadium. In your quest for the coveted NASCAR Championship, you'll need to drive skillfully on each type of track as you accrue vital points according to each finish.

When you choose Multiplayer, NASCAR Legends takes on a whole new dimension- that of battling it out with fellow human drivers using the Internet, or on a LAN (Local Area Network).



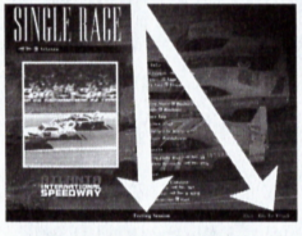
To drive, click on the Single Race button...

Alright, enough with the speeches, let's do some driving! For this example, we'll start at the Main Menu and click on Single Race, then choose Atlanta International Raceway. You can select tracks easily in NASCAR Legends by clicking on the left/right arrows in the upper left hand corner of the screen. These arrow buttons allow you to cycle through all of the tracks in alphabetical order. You can also click on the drop-down button next to the track name to open an alphabetic list of all of the tracks. This feature lets you instantly select the track of your choice, without having to scroll through the tracks one at a time.



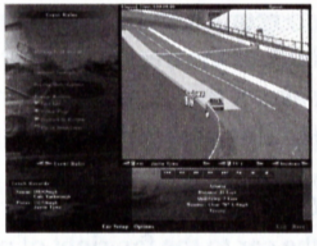
Choose a track and adjust the race settings...

Now that you've got Atlanta selected, we're almost ready. One more thing to do before we hit the track: look at the race settings, near the middle of your screen to make sure that Damage is turned off. This will allow you to get out there and bang the car around some without worrying about who's going to have to fix it!



Click on the Testing Session or Go To Track buttons found in the lower right corner...

Now we're ready to roll. Click on the Testing Session button located in the bottom center of the screen. Pow! Now we're at Atlanta International Raceway, featuring a wide surface at just over a mile-and-a-half, providing a perfect training ground...plenty of room, with some high speed thrown in. Your car is now sitting on pit road, its engine running and in first gear (there is no neutral gear in this simulation). Click on the Race button found in the lower right corner of the screen- now you should be actually inside your stock car. If you see an external view of your car instead, press the F10 key until the view switches inside the car.



Click on the Race button located in the lower right corner to take your car out onto the track..

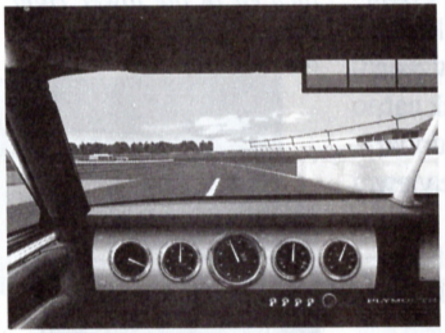
A Quick Word About Gears

In this simulation, you have the choice of letting the computer shift for you or handling the duties of changing gears yourself. It is strongly recommended that you perform your own gear shifting, rather than leave it up to the computer. You will discover that your laps will be smoother, faster and more consistent overall if you shift gears manually.

If you're going to handle your own gears (highly recommended), you'll need to know when to shift. When the tach needle reaches about 7,900 rpms, it's time to shift.

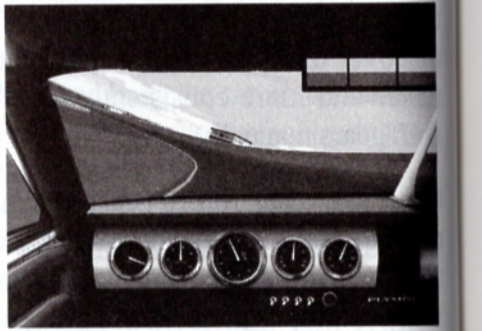
Once you reach fourth gear, you may find that most tracks demand no other shifting at all- you can keep the transmission in fourth gear lap after lap. Road courses generally

do require some shifting to accomodate the various corners, but the bulk of the tracks can be driven while remaining in one gear. For the sake of this demonstration, it really doesn't matter which method of shifting you've selected- once the car reaches top gear, keep it there.



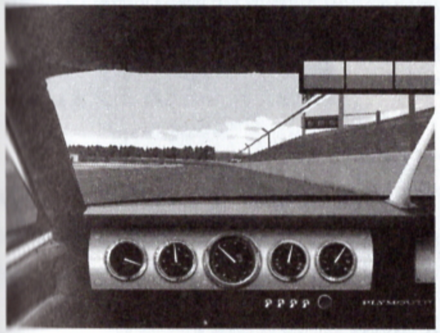
Check your rearview mirror, gradually apply some throttle and steer the car to the far-right of pit road. Give the car too much throttle and the rear wheels will spin; the car will fishtail uncontrollably as you fight to regain control. Remember, there's no hurry here- this is practice. Be smooth, take your time and drive a steady line.

As the car moves down the pit lane, keep the throttle at somewhere near the 7,500 rpm mark on the tachometer. Although there are no speed limits on pit road (hey, this is 1970, remember?), don't get too carried away this first time out. Take 'er slow and easy, get to know your car a little bit before you drop the hammer.

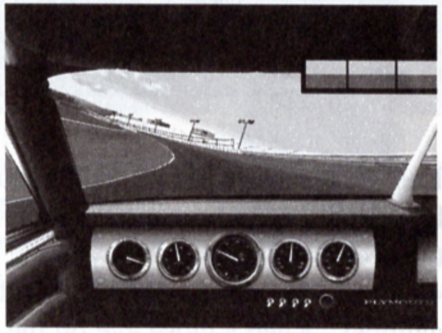


As you exit pit road, gently blend the car up onto the banking and begin to accelerate. If you're already set up to shift your own gears, remember to shift up at somewhere around 7,900 rpms on the tachometer. If you're letting the computer shift for you initially, don't worry about the tranny- you'll notice the gears automatically being shifted whenever appropriate.

Maintain a safe enough speed to stay in control as you round Turn Two. If you hear the sound of rubber squealing, you're going too fast (Remember, your tires are still cold. Tires grip much better as they get warmer).



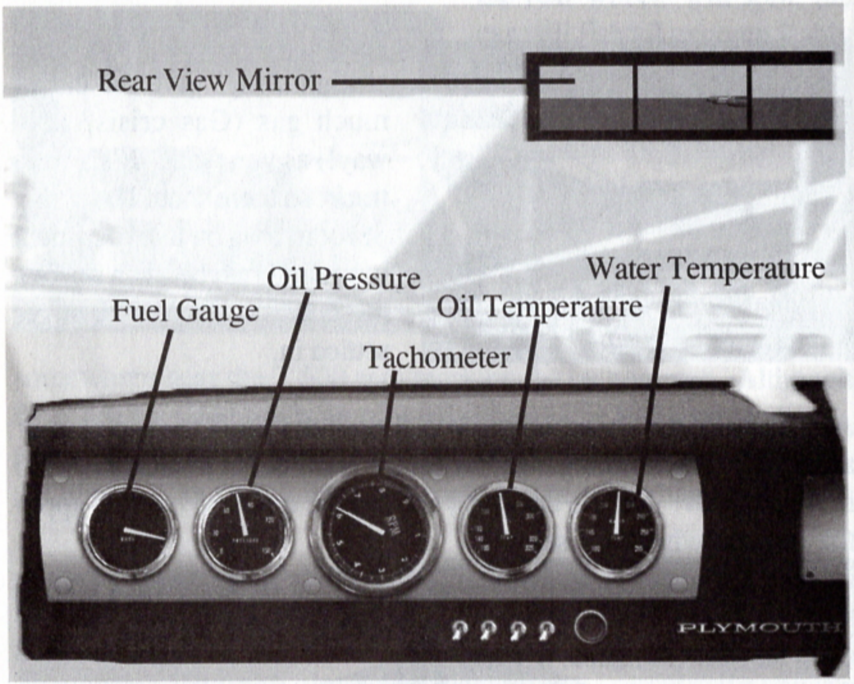
When you reach the back straightaway, give the car as much gas (Gas crisis? No way!) as you want. It's a wide track, so there should be plenty of room for you to experiment with, and maybe even make a mistake or two as you get settled in.



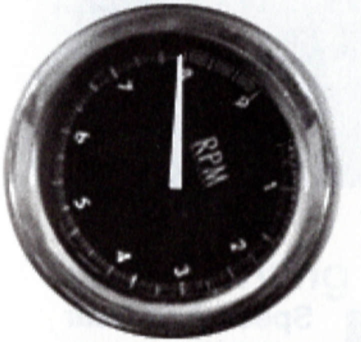
At the end of the straightaway you'll need to lift off the accelerator and apply some braking. Try to get the rpms down to around 7,000 in fourth gear. Let the car coast around the turn and only re-apply the throttle when you see the entrance to the pit lane begin to appear into view. Once you cross the start/finish line, repeat the process- run some more laps, get comfortable and then we'll introduce some keyboard controls you can use while driving the car. See you back in the pits!

In-Car Displays And Controls

Now that you've got a few laps under your belt, let's cover the basics about the cockpit of your stock car, from its instrumentation to various keyboard commands you can use while driving. We'll start with the dashboard itself:



Fuel Gauge: The needle on this gauge indicates how much fuel your car has remaining. When the needle points all the way to the right (about 4 o'clock) the tank is completely filled (22 U.S. gallons). Keep a close eye on the fuel gauge. Your 1970 model stock car doesn't have any warning lights, so play it safe by checking the fuel gauge often.



Tachometer: The largest, most important instrument on the dash. This dial indicates current engine rpms. The tachometer digits are read in thousands (zero to nine-thousand rpms). NASCAR stock cars do not have speedometers in them, so the drivers learn how to rely on the tach for speed information. The tachometer also lets the driver know when to shift gears. Generally, shifting up should occur somewhere between 7,000 and 8,000 rpms. Constantly letting the engine over-rev above 8,400 rpms will eventually lead to engine failure.

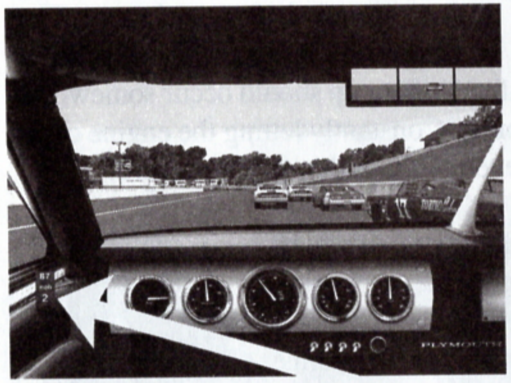
Oil Pressure: Normal operating pressure is 80 psi. Abusing the motor will cause the oil pressure to drop below recommended levels. If the oil pressure continues to drop, eventually the engine will fail.

Oil Temperature: This gauge shows you the current temperature of the engine oil. Normal readings are in the 200 degree range (Fahrenheit), as indicated in the picture on the previous page. If the engine undergoes too much stress, eventually the oil in the motor will become too hot. You'll have to slow down or readjust gear ratios to compensate.

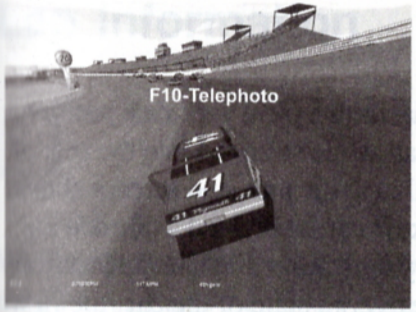
Water Temperature: Normal water temperature readings are in the 175-200 degree range (Fahrenheit). Water temperature can rise when the engine suffers abuse, or airflow is limited by damage. Eventually, the engine may overheat because it's not getting enough air flowing through the grille to keep it cool. If your engine starts to overheat in any way, chances are you'll have to slow down.

Speed And Gear Indicator

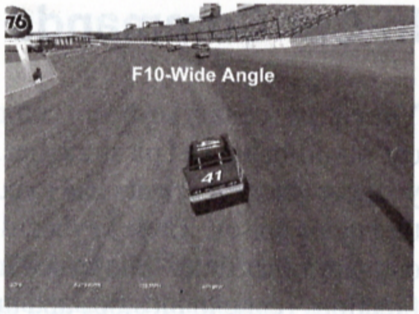
S



You can toggle a display on or off that shows your current speed and gear (as indicated by the arrow to the left). Just press the 'S' key on your keyboard while you're on the track. Press 'S' again if you want to turn off the speed and gear display. You'll find the speed and gear indicator useful during practice sessions, when you need to know how fast you're cornering. Watch replays of other drivers to find out how fast your competition is getting through each turn; note the speed, and try to top it yourself.



F10-Telephoto

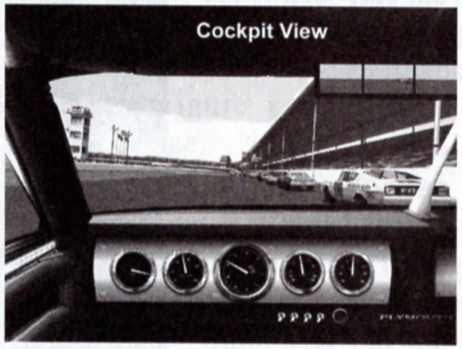


F10-Wide Angle

Arcade Driving Views

F10

Press the F10 key while on the track to switch views of your car. There are three available to use while driving: Cockpit, Arcade Telephoto, and Arcade Wide-angle. Each press of the F10 key cycles through these views, so it's simple to return to the view of your choice as you drive. Be advised that when you use an external arcade view of the car, some of the information available in the cockpit is superimposed near the bottom of the screen. Some secondary information, such as water temperature, is not available when using an external view.

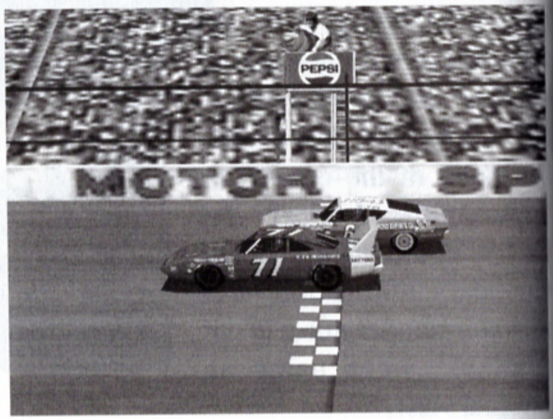


Cockpit View

In-Car Commands

You can use certain keyboard commands to look at your race position, car's well-being and pit strategies, all while strapped into the seat of your car (the real drivers had to pull in to the pits, and scream above the engine noise). These keyboard keys can be pressed while driving, or at any other time while seated in your stocker. While the last four functions relate to pit stops and the overall state of the car, the first four provide you with timely information about the race, your position and gas/rubber consumption- good stuff to know if you plan on winning any races. Of these first four keyboard items, the first two in particular stand out: Pit Board and Current Standings. More than likely, you'll view one of these two displays constantly as you drive.

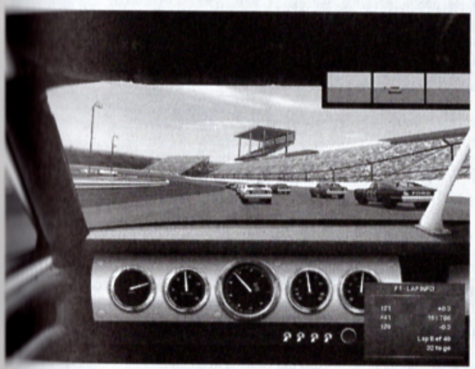
The next few pages of this section give you an overview of each of these features, as well as the keystrokes required to carry out each task. In addition, you'll probably need to read the garage chapter in this manual to find out more about the various changes you can have the pit crew make to your car, such as tire pressure and wedge adjustments.



Lap Information

F1

While in the cockpit, you can view the pit board by simply pressing the F1 key. Press the F1 key once to display the pit board; view it as long as you'd like. Press the F1 key a second time to remove the pit board from your screen. The pit board is a common item to have constantly displayed, because it contains the number of laps completed/remaining as well as the speed of your previous lap.



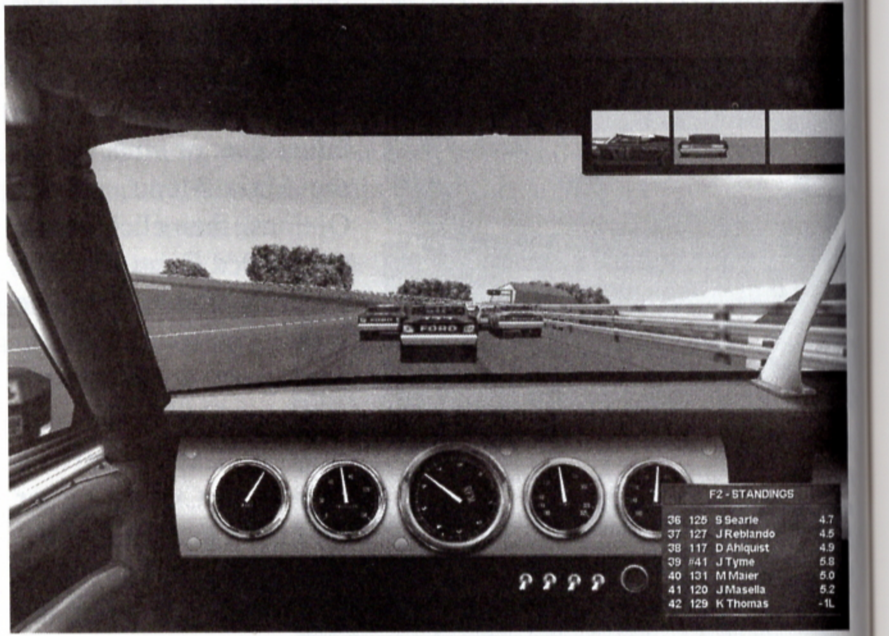
In the example above, car #121 is three-tenths of a second ahead. Our last lap was just under 152 mph, and car #120 is 0.3 seconds behind us. We're currently on the eighth lap of a 40-lap event.

You can choose to have the pit board show you the speed of the previous lap in either ***time*** or ***mph***. From the Main Menu, choose Options, then click on the tab labeled Controls. The Controls Menu is the same screen you used earlier to configure your control device. Notice the area labeled 'Lap Reporting Format.' Choose either Speed or Time here. Press the 'O' key to have your Crew Chief call out lap times.

Current Standings

F2

By pressing the F2 key, you can display the current race standings which are constantly updated. Press F2 a second time to toggle the current standings off. Each time you press F2 and enable the current standings display, you'll notice that your name is highlighted in yellow.



```
F2 - STANDINGS
36  125  S Searle      4.7
37  127  J Reblando    4.5
38  117  D Ahlquist    4.9
39  #41  J Tyme        5.8
40  131  M Maier       5.0
41  120  J Masella     5.2
42  129  K Thomas      -1L
```

By default, the standings display only gets updated once per lap, as each car crosses the start/finish line. You can, however, have the standings display update constantly, on the fly if you wish. While viewing the standings display, press the Enter key once. Now you'll notice that each interval is dynamic, rapidly updating. Something else has changed as well- car positions are no longer based on running order (1st place, 2nd place, etc.) but rather on track position. The car directly ahead of you will now be shown above your name along with the time interval between it and your car. It doesn't matter whether that car is ahead of you in position or not, the standings display has been toggled to show location instead. Think of it this way- there are two ways to view the standings display, by *position* or *location*.

↵

The Enter key toggles the standings between 'live updates' and 'once per lap updates.'

< >

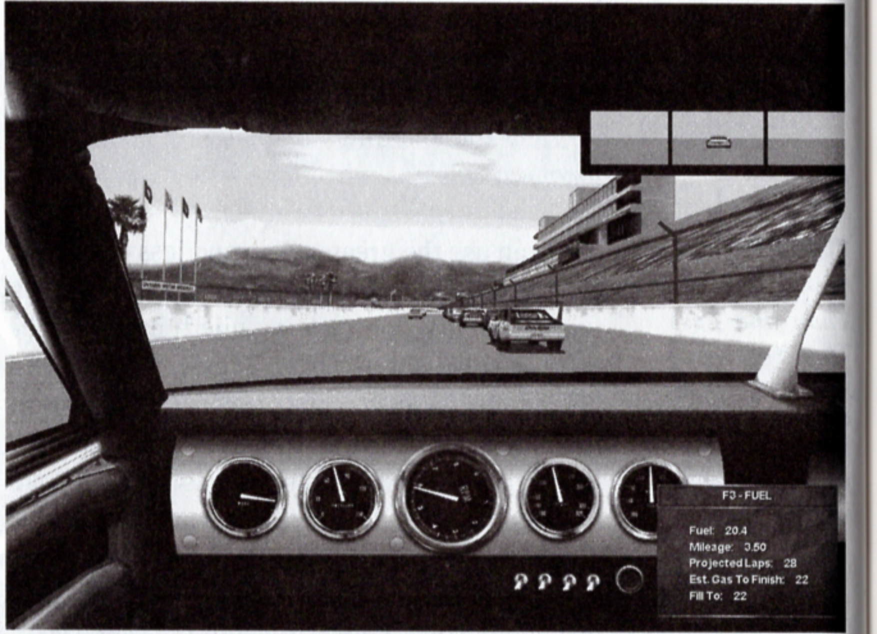
The Greater Than and Less Than key allow you to scroll up or down through the standings, so you'll know who's where.

You can use the greater than and less than keys (< >) to scroll up and down the standings list as you drive (just don't try it while running three-wide in a corner). These keys will scroll the display up/down for you, regardless of which mode you're viewing (position or location). Remember, if you scroll too far away from your own name while driving there's an easy way to retrieve it: simply press F2 to remove the standings display, then press F2 once again to turn it back on. Your name will now appear on the screen, still highlighted.

Fuel Economy

F3

What kind of gas mileage are you getting? Will you be able to finish the race on the gas remaining in your car's tank, or do you need to make a quick stop on pit road for a splash of fuel? By pressing the F3 key, you can get immediate answers to these questions.



F3 - FUEL

Fuel: 20.4
Mileage: 3.50
Projected Laps: 28
Est. Gas To Finish: 22
Fill To: 22

Although the fuel display gives you the current miles-per-gallon and fuel remaining in the tank, the critical value here is the number of estimated laps remaining before you run out of gas. In general, experienced sim drivers will periodically flip to this display (usually when pit strategies start to unfold), view it briefly, then press F1 or F2 again to display pit board or current standings info.

< >

Use the Greater Than or Less Than key to adjust the amount of fuel you want added to the car during your next pit stop.

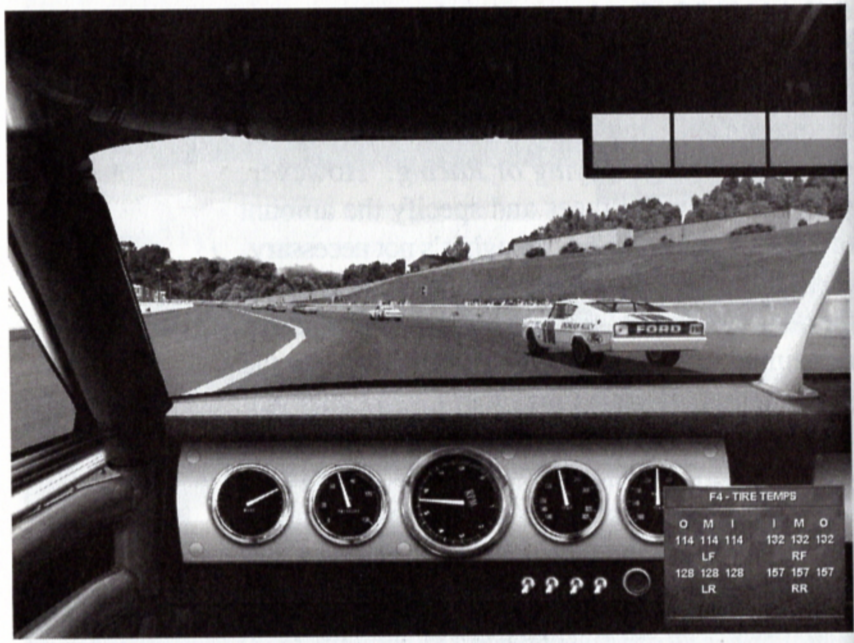
A Word On Fueling

Official NASCAR rules mandate that your car must be at minimum weight requirements during qualifying. So, you won't be able to reduce the amount of fuel in the tank in an effort to lighten the car *before Qualifying or Racing*. However, you can pit during races and specify the amount of fuel you'd like added, though it's not necessary. Each time you pit the crew will automatically fill the tank completely, unless there aren't enough laps remaining in the race to require a full tank. In the waning moments of a race, your Crew Chief will calculate the amount of fuel needed to complete the race and fill your tank accordingly. This saves you the hassle of having to try this feat yourself- you've already got enough to think about at 190 mph! However, if you'd like to specify the amount yourself, use the Greater Than/Less Than keys (< >) to set the desired fuel level.

Tire Temperatures

F4

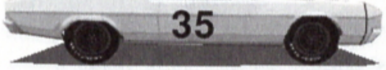
It's often been said that "Tires mean everything when you're racing." Well the fact is, truer words were never spoken. Baby that rubber, conserve those tires and make them your friend. Tires will provide you with much longer life if they are used at optimum temperatures.



To find out how much compassion or abuse you're putting your tires through, press the F4 key as you drive.

The temperatures of your tires are always changing as you drive. With the F4 tire temp display enabled, you can watch these changes as they occur. The display shows you a "top down" diagram of your tires. Outer temperatures face the outsides of the display, inner temps are shown on the inside of the display. Your left front tire is shown in the upper left corner, the right rear tire in the lower right corner, and so on. Each tire has three separate temperatures- the temperature of its outer edge, the tire's middle, and its inner edge.

Check your tire temps in testing, practice and warmup sessions. White numbers mean that a particular tire's temperature is within optimum ranges, or possibly too cold. Yellow numbers indicate that the temperature is slightly above ideal. Red numbers tell you that the tire is getting too much heat and will not offer maximum road wear.



Tire Wear/Changes

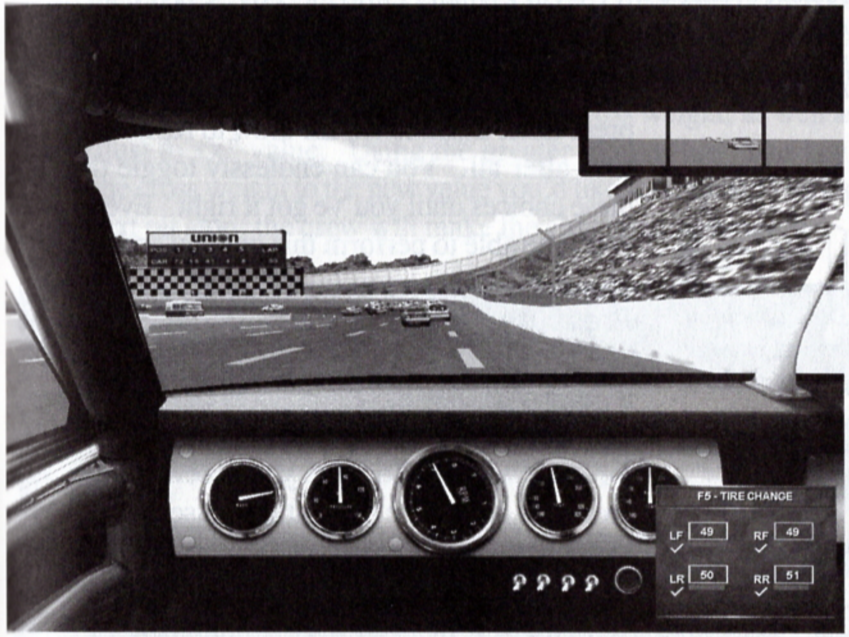
F5

The first four function keys mentioned in this section relate to data, that is, information about your car's health and its position. The next few function keys, F5-F9 allow you to specify changes to the car. Try to take care of this before you pit, so that you can focus on the race and let the crew worry about the car. The first of these, the F5 key, is what you'll use to decide what tire changes (if any) you'd like the crew to make during your next pit stop. This display also shows you, in bar graph form, the amount of tire life remaining at a given moment.

Turn on the F5 display. Like the F4 tire temp display, the diagram represents a "top down" view of the car- left front tire in the upper left corner, left rear in the lower rear corner, etc. The number inside each rectangle indicates individual pressures of each tire. See that green bar above each rectangle? That's your tire wear indicator. Each new tire starts out with a full green bar; as the green bar gets shorter, rubber is wearing away. When the tire loses a significant portion of its grip, the bar will change from green to yellow. Eventually, the yellow bar will become so short that it changes color again, this time to red. Once a tire reaches this point (red) it must be replaced very soon. Let the bar expire completely, and so does that tire.

Jack 'Em Up

To select tire changes, turn on the F5 display. By default, all four tires will be selected for changing. That means that if you never specify changes using the function keys, you'll always get all four tires changed when you pit. To instruct your crew to only replace



In the example above, the right front tire is starting to run dangerously low on rubber. Since all four tires have a check mark next to them, they'll all get changed by the crew. Use the Enter key to specify left or right side tire changes only. Use the Spacebar to highlight individual tires in order to change pressure. In our shot here, if you'd like to raise the right front pressure to 53 psi during the next pit stop, press the Spacebar repeatedly until the right front tire is highlighted in yellow. Then use the Greater Than/Less Than (< >) keys to adjust the pressure itself.

↵

Selects tires to be changed. The Enter key acts as a toggle to add or remove check marks, indicating which tires will be changed.

the left or right sides, use the Enter key to select the tires you want changed. Notice how the "check marks" next to each tire toggle on/off as you hit the Enter key. Here's the pattern it follows: all tires are selected for changing. Press Enter once to order the crew not to change any tires. Press Enter once more to only turn check marks on for the left side tires. This indicates that only the left sides will be replaced. Press Enter once more to have just the right side tires selected for replacement. Finally, press Enter again to tell the crew to replace all four tires after all. You can endlessly toggle through these choices until you've got it right. Eventually, you'll be able to perform this quickly and easily.

SPACE

Selects which tire to change pressure of.

< >

Raise and lower pressure in the selected tire. The newly selected pressure will be adjusted by the crew during your next stop.

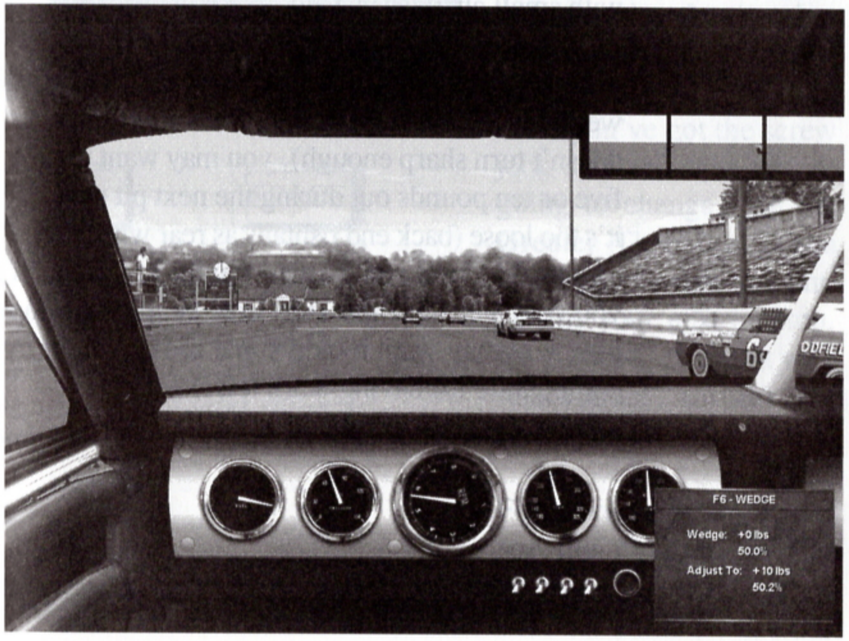
Pressure Points

By now you may have noticed that the F5 display also shows you the current tire pressure settings for each wheel. To have your crew change tire pressures during the next pit stop, use the spacebar to select a tire. Each press of the spacebar highlights a different tire in yellow. You can then set the pressure of whichever tire is highlighted by using the greater than and less than keys (< >) to raise or lower the pressure. For example, press the spacebar until the left front tire is highlighted in yellow. Now use the greater than/less than keys to adjust the left front pressure to 46 psi. Your crew will put 46 psi in the left front tire during your next pit stop.

Wedge (Cross Weight)

F6

With the F6 key, you can order changes in the cross weight of your chassis. This is a quick adjustment that can easily be made by your crew in the pits. Press the F6 key to display the Wedge window. In it, you'll see the current setting of your car's cross weight, as well as an "adjust to xx" value. Using the greater than or less than key, move the cross weight to the new value you'd like for it to be. During your next pit stop, the crew will make the change accordingly.



Wedge: +0 lbs
50.0%
Adjust To: +10 lbs
50.2%

< >

Use the Greater Than or Less Than key to change the amount of cross weight you want adjusted during the next pit stop.

Lets talk about cross weight (also known as wedge) from a strategical standpoint for a moment. Notice that cross weight is adjustable in five-pound increments only. Each five-pounds represents a "round-" that is, a complete revolution of the wrench used to make the adjustment. When you hear a person say, "We took two rounds of wedge out," that means they turned the wrench two full revolutions to reduce the amount of cross weight.

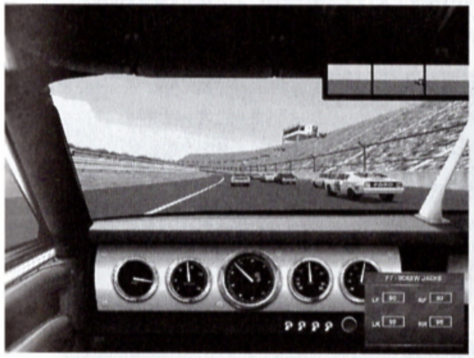
Subtle cross weight adjustments can have a dramatic affect on how fast your car turns laps. Try to avoid the temptation of having the pit crew add or remove cross weight in huge chunks; stick with small changes instead.

When should you have the crew adjust cross weight? If the car definitely feels too tight (car doesn't turn sharp enough), you may want to take five or ten pounds out during the next pit stop. If it's too loose (back end fishtails as rear wheels spin excessively) put some cross weight in. Also, if you only get the right side tires changed in the pits, you may want to add some cross weight to compensate for having worn left side tires.

Screw Jacks

F7

Ever find yourself in the middle of a race, driving a wiggly, moody beast? You can do something about it during pit stops. While driving, press the F7 key to display the Screw Jacks window. Select a screw jack by pressing the spacebar. The spacebar cycles through all four screw jacks, so if you bypass the one you want, keep pressing the spacebar until you have it selected.



< > SPACE

Use the Spacebar to select the screw jack at the appropriate wheel. Next, use the Greater Than/ Less Than keys to select a new amount. Screw Jacks stiffen or soften the springs on your car.

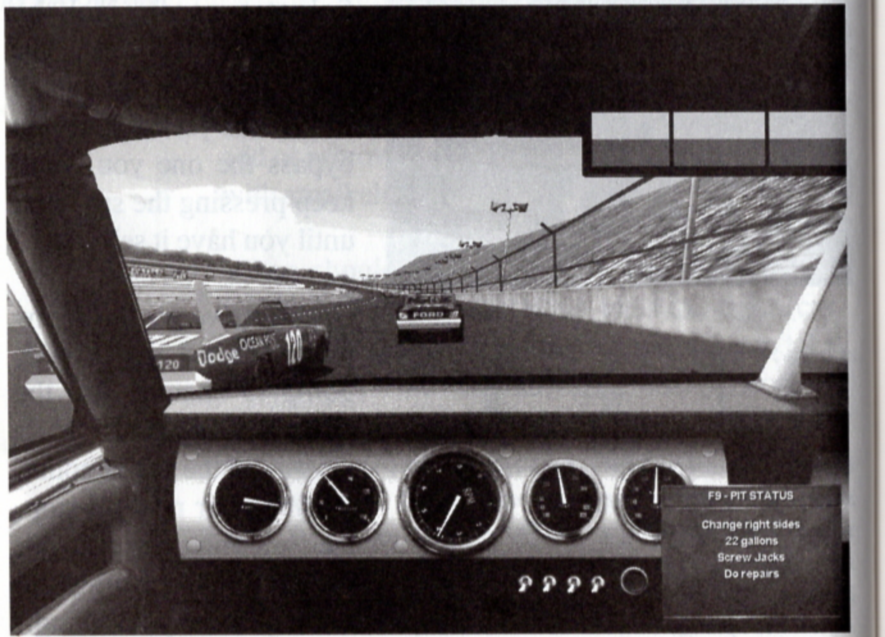
Once you've got the screw jack selected that you're going to change, use the Greater Than/Less Than keys to set the new amount. During your next pit stop, the crew will carry out your instructions, turning the screw jacks to your liking.

For more on Screw Jacks, see the chapter on Car Setups.

Status/Damage

F9

Use the F9 key to display all of the changes that are going to be made during the next pit stop. This makes it easy to confirm all of the adjustments you want done, before you start heading for pit road. With the F9 status window displayed, you can also see whether your car is damaged, and decide if you want the crew to repair it or not. Repairs generally consume precious time on pit road- time you can't always afford to spend. Under a yellow flag it may be wise to get some or all of the damage fixed, but getting repairs during a green flag stretch may cost you too much time to be able to remain competitive. Press the Enter key to toggle repairs on or off. By default, the repairs will automatically be enabled when you incur damage. Press Enter to prevent repairs. If you change your mind, you can always press Enter again to reinstate repairs.



F9 - PIT STATUS
Change right sides
22 gallons
Screw Jacks
Do repairs

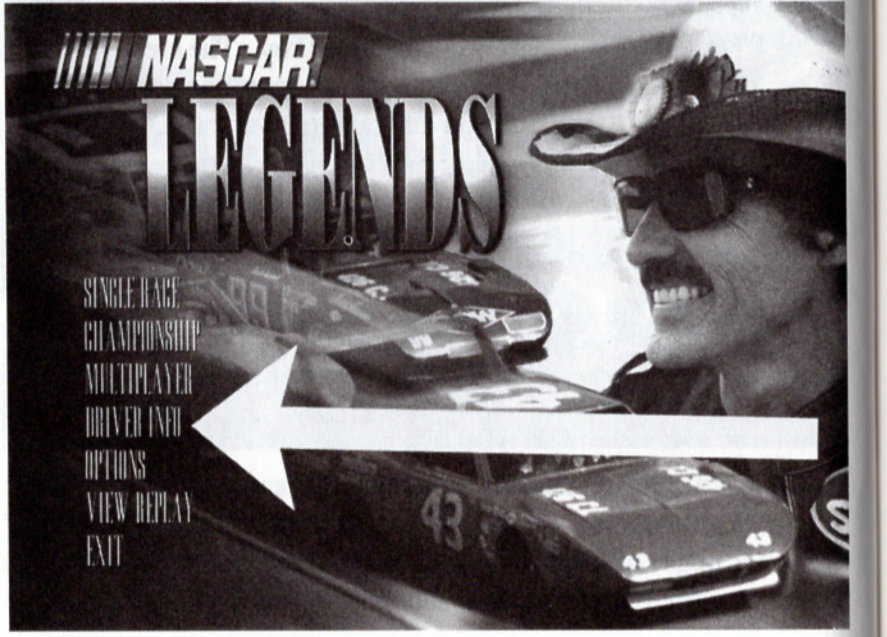
Use the Enter key to instruct the crew to repair or avoid repairing any damage. They will automatically attempt to repair damage during your next pit stop, unless you press the Enter key, which tells them not to. This key acts as a toggle, repeatedly cycling repairs on/off.

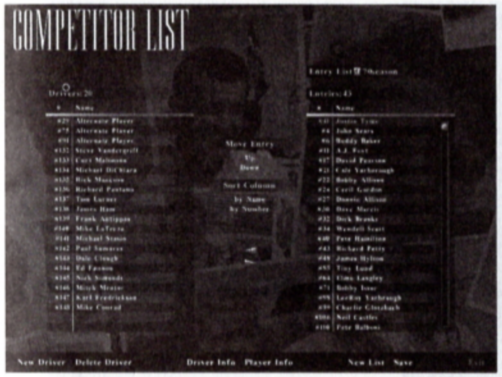
Sometimes, when you're in the pits getting the car fixed you might find it necessary to halt repairs and get back on the track quickly. In these instances, have the F9 display toggled on and just press the Enter key. The crew will stop working on the car as soon as possible, drop the jack and let you return to the action.

Personalizing NASCAR Legends

Now that we've spent some time covering the basic controls and features of the *inside* of your car, let's talk about the *outside*. There are several ways to put your own stamp on NASCAR Legends (all wrecks aside). You can type your name and biographical information in and save it. That way, your own name (or nickname) will appear in the race standings and results, instead the generic "The Player" moniker. You can also use the NASCAR Legends Paint Shop (included) to put your own graphical touches on your car, but we'll cover the details of that later.

For now, get to the Main Menu and click on the Driver Info button.


NASCAR
LEGENDS
SINGLE RACE
CHAMPIONSHIP
MULTIPLAYER
DRIVER INFO
OPTIONS
VIEW REPLAY
EXIT

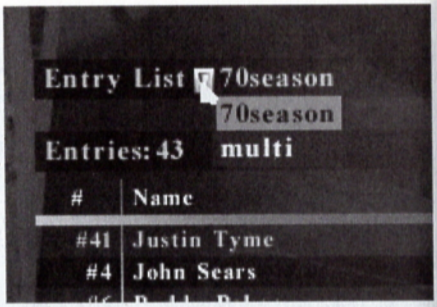

COMPETITOR LIST
Move Entry
Up
Down
Sort Column
by Name
by Number
New Driver
Delete Driver
Driver Info
Player Info
New List
Save
Exit

With the Driver Info Menu, you have the ability to create and manage your own lists of drivers. On the right of this screen, you'll see the current driver's list. These are the foes you'd race against if you went directly to the track. But since you're here, let's take a quick look at how we can shuffle these drivers to suit our own liking.

On the left side of the screen above, you'll see the remaining drivers whose cars exist on the system; these drivers simply aren't a part of the current list. To add a driver to your current list, click to highlight the driver you want to add from the left side of the screen, click on the arrow that points toward the right (located in the center of your Driver Info screen), and now the driver you wanted in your list is there. Remove unwanted drivers from the existing list in the same fashion. Click on the driver's name on the right side (in the current list) and then click the arrow that's pointing toward the left; this action will send the driver back to the bench. Save your changes when finished by clicking on the 'Save' button, found at the bottom of the screen.

If you'd like to create a fresh list from scratch, no problem. Click on the 'New List' button along the bottom of the Driver Info screen; now you'll have a blank sheet to start filling up with your favorite drivers.

Recall existing lists by using the drop-down button on the Driver Info Menu. You'll be racing with the list of drivers you recall here, so get started! Build a list of your favorite NASCAR Grand National pros, or create your own local legends from scratch!

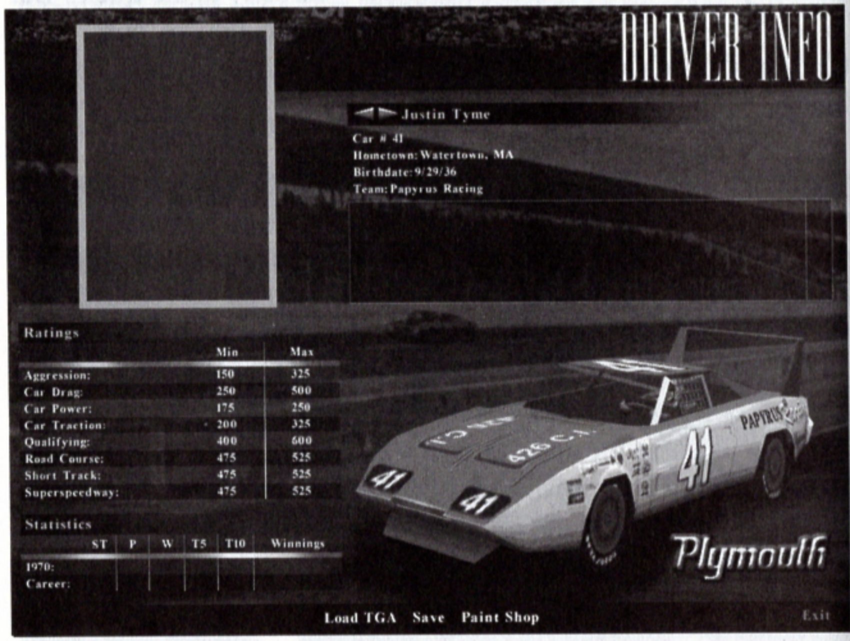


Entry List 70season

70season

Entries: 43 multi

#	Name
#41	Justin Tyme
#4	John Sears



Justin Tyme

Car # 41

Hometown: Watertown, MA

Birthdate: 9/29/36

Team: Papyrus Racing

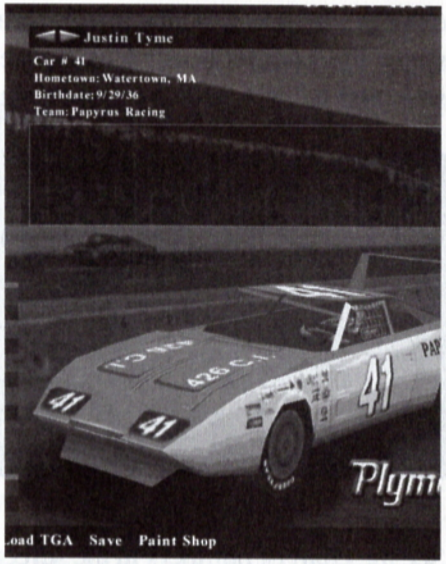
Ratings

	Min	Max
Aggression:	150	325
Car Drag:	250	500
Car Power:	175	250
Car Traction:	200	325
Qualifying:	400	600
Road Course:	475	525
Short Track:	475	525
Superspeedway:	475	525

Statistics

	ST	P	W	T5	T10	Winnings
1970:						
Career:						

When you click on the Player Info button at the bottom of the Driver Info Menu, you'll see the car you're driving, along with other appropriate information.



Justin Tyme

Car # 41

Hometown: Watertown, MA

Birthdate: 9/29/36

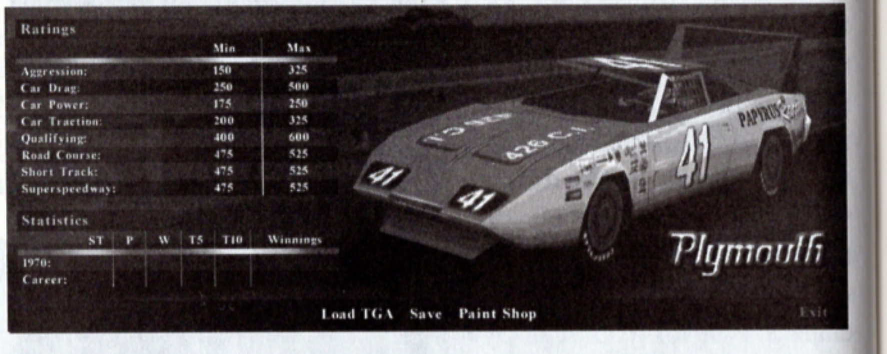
Team: Papyrus Racing

Type new information in just by clicking on the existing data that's there. For instance, click on the name 'Justin Tyme' and type 'Rusty Pipe' instead (or whatever name you plan to race under). Change the car number (this only affects the number shown in standings, we'll paint new numbers on the car itself later) by typing a new number in. Change the chassis type of your car by swapping one of the "Alternate Player" cars into the Driver's List and moving it to the top (player's car). Each of these cars is a different model. There are four different chassis makes that you can use in NASCAR Legends. While all are equally matched, each one has its own inherent handling characteristics.

At the bottom of this screen, you'll notice a button labeled 'Paint Shop.' Click on this button to repaint the car with your favorite sponsor- Spinner Rotors, Ichabod's Ice Tea, Uncle Jesse's Wax, or whatever corporate image you'd like to flog as your sponsor. At the end of this chapter, you'll find more detailed information about how the NASCAR Legends Paint Shop works.

Remember how you clicked on Player Info to open the screen that contained your name, stats and car? You can also highlight any other driver listed, and click Driver Info instead. By doing so, you

can open up any driver's info and car in order to edit, repaint or just study the competition. Customize your car sets by changing the stats and painting other sponsors and schemes on them.



Ratings

	Min	Max
Aggression:	150	325
Car Drag:	250	500
Car Power:	175	250
Car Traction:	200	325
Qualifying:	400	600
Road Course:	475	525
Short Track:	475	525
Superspeedway:	475	525

Statistics

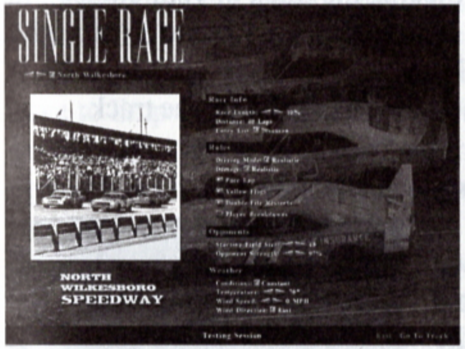
	ST	P	W	T5	T10	Winnings
1970:						
Career:						

See the chart of numbers in the screen above? These values represent each driver's strengths and weaknesses. They may be edited as well. Your favorite driver not keeping up with you out there on the track? Pump up that driver's ratings. You may want to make notes of where the numbers were before you changed them, in case you don't like the new values once you've used them in a race.

Use the gold left/right arrows shown next to the driver's name (in the example on previous page, Justin Tyme's) to cycle through your list of drivers. That way you can easily move through the entire list, editing to your liking without having to leave this screen and come back to it each time you select another driver to edit.

DRIVER INFO
CHAMPION
Plymouth
Load TGA
Save
Paint Shop

Customizing Your Races



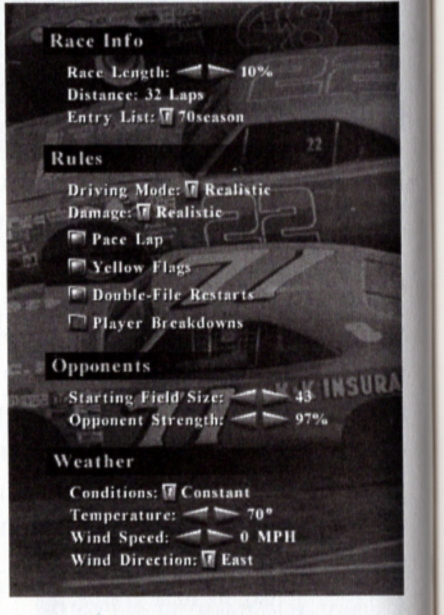
We've been through the car and its controls, and we've got your own name appearing in the standings column now. Time to do some racing! From the Main Menu, click on the Single Race button. Now you're at the Single Race Settings Menu. Remember, you were here earlier when we took a few laps around Atlanta International Raceway to get you acquainted with the car.

There are a host of racing options in NASCAR Legends. Everything from how long a race lasts to what kind of weather conditions the race will be held in may be set to your liking. Not up to speed yet at a certain track? Slow your computer opponents down. Too many cars on the track for your comfort? Reduce the size of the field. As you eventually gain confidence in your racing abilities, come back to the Single Race Settings Menu and beef things up a bit to make things more challenging.

The preferences you select on the Single Race Settings Menu are saved automatically from race to race- there's no need to re-enter them from scratch each time you launch NASCAR Legends. As we go through these for you one-by-one, keep in mind that most of the items on this menu can be set independently. No matter what kind of race you're looking for, you can create it here.

First off, there's the Track Selector, which you already used earlier to select Atlanta International Raceway for our practice run. In Single Races, you have the option of picking the track of your choice. In Championship Seasons, you'll contest each track in the actual order of its appearance on the 1970 NASCAR schedule. In Multiplayer Races, the creator or host of the race gets to choose the track.

Once you've derived which track you're going to race on, look at the right side of the Single Race Settings Menu. These items govern virtually every facet of the race- from its length to its field size. The first section, Race Info, allows you to set the length of the race, based on the actual race distance for that track. Select Richmond and set the distance to 100%, and you'll be running in a 500-lap race. Set the distance to 50%, and now you're competing in a 250-lapper. Knock the distance down to 10% and now you've got a 50-lap sprint to the checkered flag. Run any distance you wish, from 1% to 100%.



Race Info

Race Length: ◄ ► 10%
Distance: 32 Laps
Entry List: 70season

Rules

Driving Mode: Realistic
Damage: Realistic
☑ Pace Lap
☑ Yellow Flags
☑ Double-File Restarts
☐ Player Breakdowns

Opponents

Starting Field Size: ◄ ► 43
Opponent Strength: ◄ ► 97%

Weather

Conditions: Constant
Temperature: ◄ ► 70°
Wind Speed: ◄ ► 0 MPH
Wind Direction: East

Pick the Entry List you wish to compete against. These lists are built with the Driver Info Menu. They may consist of authentic 1970 NASCAR Grand National Division drivers, or other custom lists you build from scratch.

Select the Driving Mode, Realistic or Arcade. The Arcade level provides beginners with a "super-car." The Arcade car has enhanced horsepower, better traction and is generally superior to the computer opposition. On the other hand, the Realistic car provides a more challenging NASCAR experience. Fram that wall too hard and you'll have to limp the car in for repairs. Let the rpms drop too low and you'll fall to the back of the line in a hurry. If you plan to race against human competition online, you'll need to master the Realistic car first.

The Damage settings come in three flavors: None, Arcade or Realistic. With Damage set to None, you can drive through concrete barriers (well, not literally), into computer opponents and into pit lane walls- in a bullet-proof car that won't suffer any nicks or scratches. The engine can still be blown by over-revving the motor, and your tires will still wear out, but with no damage selected your car is otherwise indestructible. Realistic damage challenges you to avoid other cars, walls and objects at the risk of wounding your vehicle; should you hit something, the severity of the impact is directly proportionate to the severity of damage incurred. A damaged car cannot be expected to perform as well as a healthy one; the aerodynamics and suspension components, once disturbed by an impact, may not be totally repairable by the crew. Using Arcade damage, you'll find a happy medium between None and Realistic. Your car will still be subject to damage, but at a more tolerable rate. Hard collisions may result in minor damage, for instance, when using the Arcade damage model.

The Pace Lap checkbox toggles the pre-race parade lap on or off. With the Pace Lap on, the field will make one lap at pace speed to warm the tires. As the pace car pulls onto pit road, the green flag will wave and the race will begin with a rolling start. With the Pace Lap disabled, all cars will begin the race from a standing start.

Choose whether to race with or without Yellow Flags. With the Yellow Flags box checked, yellows will occur whenever incidents dictate they should. With Yellow Flags disabled (unchecked) there will be no caution periods during accidents. You may want to leave yellows on for longer races, because of its affect on pit strategies.

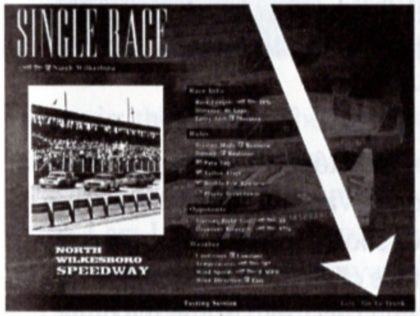
Double-File Restarts were employed in real 1970 NASCAR races. Cars on the lead lap line up in the outer lane under caution, while slower cars that are no longer on the lead lap form a lane on the inside. This allows the faster cars to race each other without having slower cars in the way when the green flag drops. It also allows faster drivers who have been lapped through some misfortune an opportunity to get back on the lead lap with a clean restart. When there are only ten laps or less remaining in a race, all cars will start single file following cautions. By checking this box, your races will also feature Double-File Restarts, just like the real world. With Double-File Restarts disabled, all cars will line up single file during every caution period.

Player Breakdowns only affect your car, not the computer opposition. Checking this box means your car will become subject to random mechanical maladies that will end your day. Want to know how James Hylton really felt after spending two hours in first place, only to have something go wrong with his engine? These failures will not happen in a major percentage of your races, but they will occassionally happen- unless you leave this box unchecked.

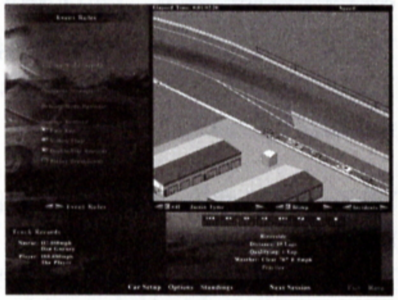
The remaining items on the Single Race Settings Menu allow you to

set the maximum field size and strength, and adjust the race weather. One note about the field size: This number only represents the maximum number of cars allowed in the race. If the track you're racing on can only support 30 pit stalls, for example, you will only be able to race against 30 cars even if you've got 40 selected.

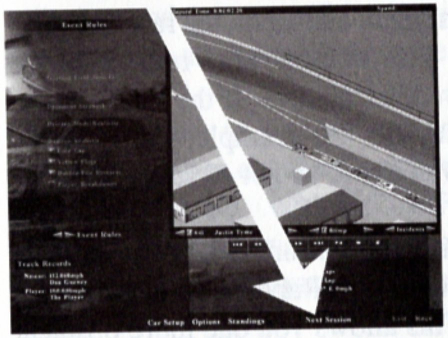
Regarding the weather, you have the option to dial up specific temperatures and wind currents, or use the Random Weather setting instead of Constant Weather. This allows you one more obstacle that real world teams and drivers must overcome- nature.



Once you've got the Single Race Settings the way you want them, click on the Go To Track button located in the bottom right corner of the screen (indicated by the arrow at left). These race settings will remain set the same as you move from track to track, until you decide to change them.



For example, set the computer opponents to 97% strength for a race at North Wilkesboro, and they'll still be set at 97% next time you load NASCAR Legends and pick another track to race at. They'll stay where you put them, until you change them. Once you're at the track, you'll see the Race Weekend Menu (as shown at right).

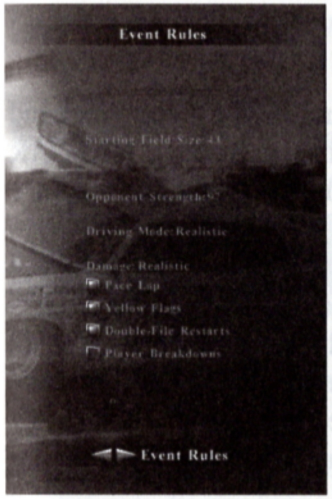


Using The Race Weekend Menu

The Race Weekend Menu is very easy to use. Click on any of the buttons at the bottom of the screen to perform the appropriate action- the Car Setup button takes you to the garage, the Options button opens up the Options Menu (the same one found by clicking Options from the Main Menu), the Standings button gives you detailed standings for the current session, and the Exit button packs up your team's hauler and leaves the track- back to the Single Race Settings Menu.

The arrow in the screen above is pointing to the Next Session button. Each time you click this button, you advance to the next session of the current race. Our sample above shows that we are currently in the Practice session at Riverside. If we click the Next Session button once, we'll advance to the Qualifying session. When we click the Next Session button again, we'll advance to the pre-race Warmup Session, a final chance to dial in our race car and get settled in. Finally, click on the Next Session button again to advance to the Race. Feel free to skip any session(s) you wish, none of them are mandatory.

When you want to hit the track and drive your car, click on the Race button located in the lower right corner of the Race Weekend Menu. Ready to qualify? Click Next Session once to advance to qualifying, visit the Car Setup Menu to make sure you've got the chassis loaded up the way you want, then click Race! Time to make it count!



Event Rules

Starting Field Size:43

Opponent Strength:97

Driving Mode:Realistic

Damage:Realistic

☑ Pace Lap

☑ Yellow Flags

☑ Double-File Restarts

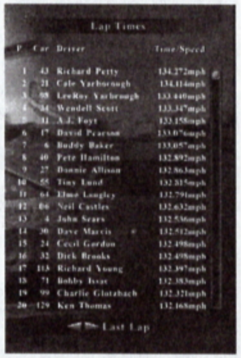
☐ Player Breakdowns

Event Rules

The Race Weekend Menu provides you with all the information you need to manage your racing team throughout an entire NASCAR event (without the headaches, of course).

In the upper left corner of this screen, you'll see a list of the Event Rules. This list is 'greyed out,' meaning these items cannot be changed. These are the settings you chose prior to arriving at the track itself, here for your review.

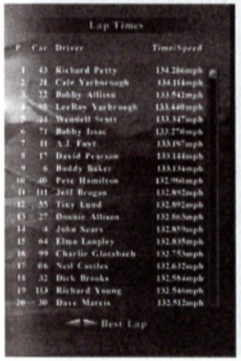
If you click on the gold left/right arrows shown in the image above, however, you'll receive additional information like you see below. View the current Leaderboard, complete with intervals, or the Last Lap speed of each car. The Best Lap screen shows you the overall best speeds that each driver has run. These items all cycle, so continuous clicking will eventually bring you back to the Event Rules display, and so on.



Lap Times

P	Car	Driver	Time/Speed
1	43	Richard Petty	134.272mph
2	21	Cale Yarborough	134.114mph
3	98	LeeRoy Yarbrough	133.440mph
4	34	Wendell Scott	133.347mph
5	11	A.J. Foyt	133.158mph
6	17	David Pearson	133.076mph
7	6	Buddy Baker	133.057mph
8	40	Pete Hamilton	132.892mph
9	27	Donnie Allison	132.863mph
10	55	Tiny Lund	132.815mph
11	64	Elmo Langley	132.791mph
12	06	Neil Castles	132.632mph
13	4	John Sears	132.536mph
14	30	Dave Marcis	132.512mph
15	24	Cecil Gordon	132.498mph
16	32	Dick Brooks	132.498mph
17	113	Richard Young	132.397mph
18	71	Bobby Isaac	132.383mph
19	99	Charlie Glotzbach	132.321mph
20	129	Ken Thomas	132.168mph

Last Lap



Lap Times

P	Car	Driver	Time/Speed
1	43	Richard Petty	134.286mph
2	21	Cale Yarborough	134.114mph
3	22	Bobby Allison	133.542mph
4	98	LeeRoy Yarbrough	133.440mph
5	34	Wendell Scott	133.347mph
6	71	Bobby Isaac	133.270mph
7	11	A.J. Foyt	133.197mph
8	17	David Pearson	133.144mph
9	6	Buddy Baker	133.134mph
10	40	Pete Hamilton	132.960mph
11	111	Jeff Brogan	132.892mph
12	55	Tiny Lund	132.892mph
13	27	Donnie Allison	132.863mph
14	4	John Sears	132.859mph
15	64	Elmo Langley	132.835mph
16	99	Charlie Glotzbach	132.753mph
17	06	Neil Castles	132.632mph
18	32	Dick Brooks	132.584mph
19	113	Richard Young	132.546mph
20	30	Dave Marcis	132.512mph

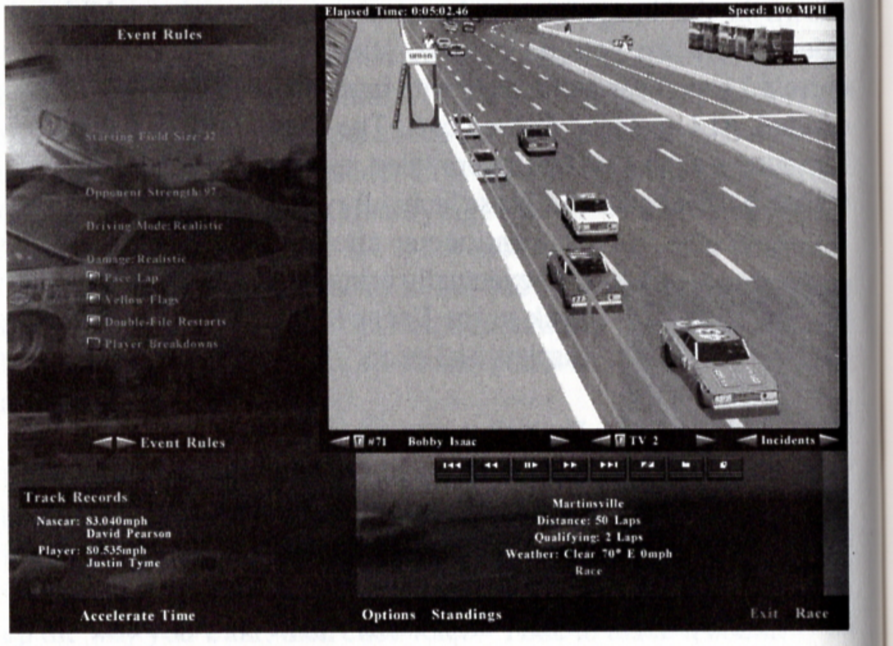
Best Lap

Each time you press the ESCape key while driving, the action will pause and you'll return to the Race Weekend Menu; this gives you a chance to take a break from driving (without losing your place) to review these items whenever you want.

Instant Replays

We've covered most of the features found on the Race Weekend Menu, with the exception of one big one- instant replays. NASCAR Legends features a powerful replay system, built right into the Race Weekend Menu.

All of the controls you need to access replays, study various camera angles, edit & save your favorite clips, and review your driving skills can be found on this screen. If you can use a VCR, you'll find the replay viewer in NASCAR Legends to be pretty basic. First things first, though: let's go over the replay controls, beginning on the next page.



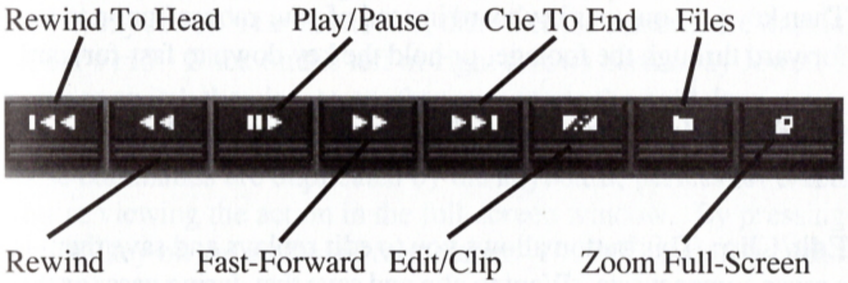
Starting Field Size: 32
Opponent Strength: 97
Driving Mode: Realistic
Damage: Realistic
☑ Pace Lap
☑ Yellow Flags
☑ Double-File Restarts
☐ Player Breakdowns

Nascar: 83.040mph David Pearson
Player: 80.535mph Justin Tyme

Elapsed Time: 0:05:02.46
Speed: 106 MPH

Martinsville
Distance: 50 Laps
Qualifying: 2 Laps
Weather: Clear 70° E 0mph
Race

Instant Replay Controls



Rewind To Head Button: Click on this button to cue the footage to the very beginning. The overall length of footage available depends upon how much RAM (Random Access Memory) is available on your computer system, and how much space you allocate for the Replay Buffer. Assuming your system can only save 22 laps and you've just completed a 200-lap race, you'll only have the final 22 laps available to work with.

Rewind: Each click on this button steps backward through your footage, frame-by-frame. Click and hold the mouse button down to rapidly rewind the replay tape. You can also press the Less Than key (<) on your keyboard instead of your mouse button to step backward through the footage, or perform a rapid rewind.

Play/Pause: Click on this button once to start playing the footage in real time; click on this button a second time to pause the action. You can also use the Spacebar on your keyboard in the same manner. Press the Spacebar once to play the footage, and press it again to pause the tape.

Fast-Forward: Each click on this button steps forward through your footage, frame-by-frame. Click and hold the mouse button down to rapidly fast-forward ahead. You can also press the Greater Than key (>) on your keyboard instead of your mouse button to step forward through the footage, or hold the key down to fast-forward.

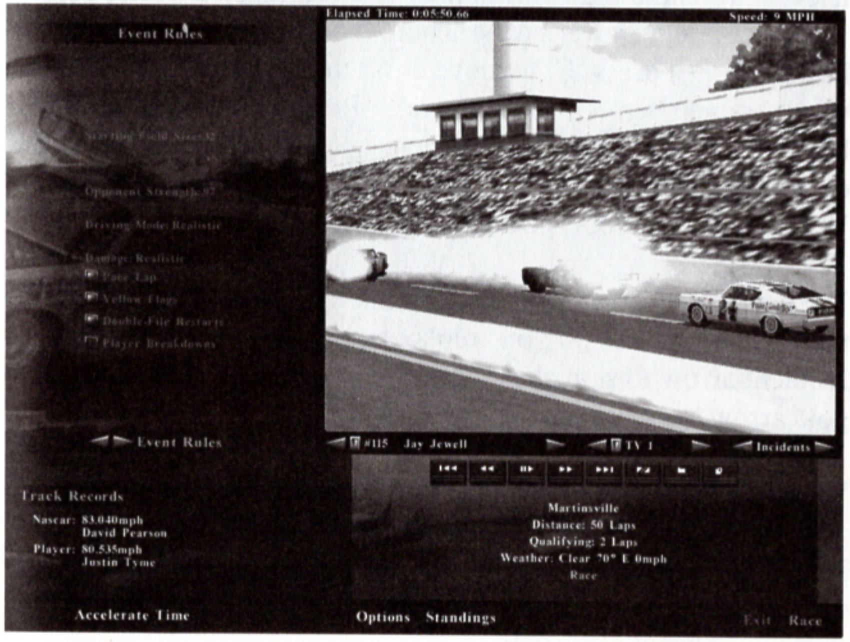
Cue To End: Click once on this button to jump to the end of the replay tape.

Edit/Clip: This button allows you to edit replays and save them in a more compact size. Want to clip and save that daring pass, or that dreadful incident? No problem. Cue the replay tape to the frame you wish to begin your clip with. Now click the Edit/Clip button once to mark the 'in-point' of the clip. Play or fast-forward the replay tape to the frame you want the clip to end with. Click the Edit/Clip button again to mark the 'out-point' of the clip. You will automatically be prompted to save your newly clipped file. This feature is ideal for saving small replay files you can exchange with friends, without having to make them wade through an entire twelve-megabyte replay file!

Files: Click on this button to save or load your replay file.

Zoom Full-Screen: You can watch replays in full-screen color, instead of the compact replay window found on the Race Weekend Menu. Just click on this button to do so. Keep in mind that while viewing full-screen replays, all of the VCR keyboard keys still operate (such as the < > keys), so that you can control the footage. When you're ready to exit the full-screen view, just press the ESCape key on your keyboard.

In addition, there are three other replay controls available. The first of these allows you to switch the replay view to any car- not just your own (perfect for seeing the 'whites of their eyes!') In the screen below, Jay Jewell's car is selected; therefore the cameras are trained on car #115. Click on the left or right arrows beside Jay Jewell's name to switch the view to another car (or use the gold drop-down button to select from a list of drivers). Like many of the VCR controls, these commands are duplicated by the keyboard, perfect for when you're viewing the action in the full-screen window. By pressing the 'V' key on the keyboard (remember 'V' for Vehicle), you can jump ahead to the car nearest Jay Jewell's. Each subsequent press of the 'V' key will step one car ahead. By pressing 'Control-V' on the keyboard, you can step backward along the track, viewing replays from every car.



Starting Field Size:32

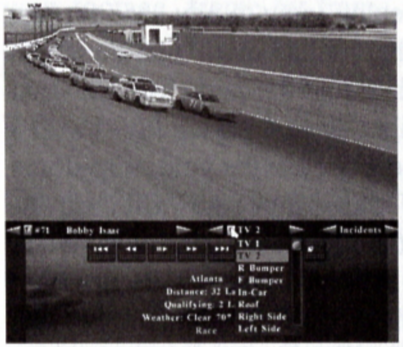
Opponent Strength:97

Driving Mode: Realistic

Damage: Realistic
☑ Pace Lap
☑ Yellow Flags
☑ Double-File Restarts
☐ Player Breakdowns

Track Records
Nascar: 83.040mph
David Pearson
Player: 80.535mph
Justin Tyme

Martinsville
Distance: 50 Laps
Qualifying: 2 Laps
Weather: Clear 70° E 0mph
Race



Atlanta
Distance: 32 La
Qualifying: 2 L
Weather: Clear 70°
Race

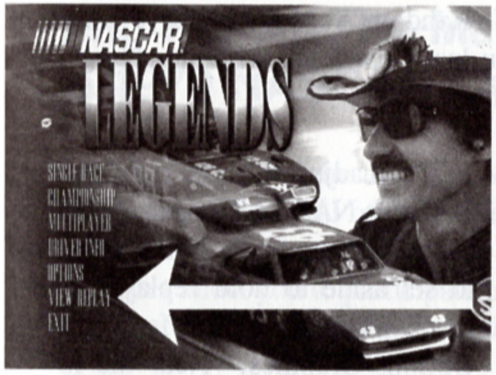
Studying the screen at the left, notice the list of cameras in the drop-down box. Currently, the 'Chase' camera is selected. There are several angles available for viewing, and you can switch between them whenever you want.

To change the camera view, click on one of the gold arrow buttons (or the gold drop-down button as shown in the example) and select the camera angle of your choice. The first two angles, TV 1 and TV 2 represent what you would see if you were watching the replay on television. These angles are similar to a Television Director cutting from shot to shot, covering the action. To change cameras using the keyboard, just press 'C' to move down the list of available camera views (remember 'C' for Camera). Press 'Control-C' to move backward through the list of cameras. Like the vehicle keys, the camera keyboard keys give you a way to switch views when the VCR buttons are not visible due to full-screen mode.

Use the Incident arrows to quickly locate spins and wrecks involving the selected driver, on your replay tape. Click on the right gold Incident arrow to skip ahead to the next incident; click on the left gold arrow to go back to the previous incident.

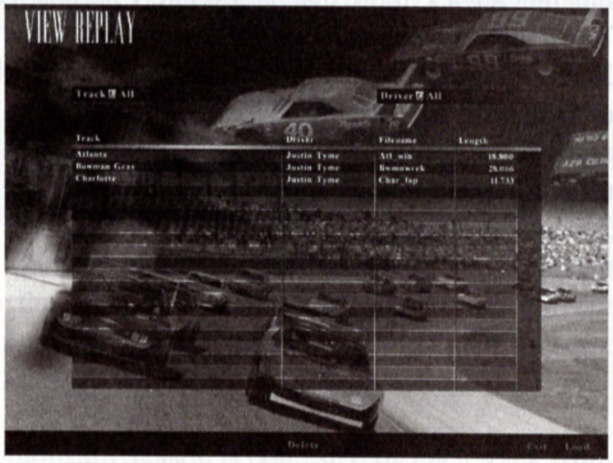
Viewing Replays From The Main Menu

NASCAR Legends has a handy way for you to access stored replays, without having to load up the particular track the replay was recorded



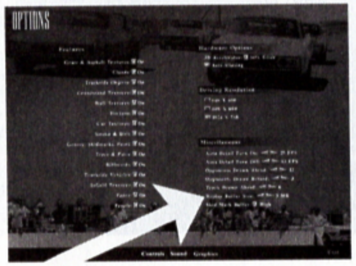
at. From the Main Menu, click on the View Replay button (indicated by the arrow at left). This takes you directly to a replay file management system, showing you all of the available replays that have been saved on your computer.

Replays can be sorted by individual drivers and tracks, or you can simply view every replay available on your system. In the example below, we've got three replays saved from three different tracks. Just click on one of the saved files to load it up and view the replay. For instance, if we want to watch the tape of our stunning victory at Atlanta, we'll click on the replay file called 'Atl_win' (that's the name we gave the replay when we saved it after the race). After clicking on the filename to highlight it, click the Load button in the lower right corner of the screen. The selected replay will now load.



Track	Driver	Filename	Length
Atlanta	Justin Tyme	Atl_win	18.800
Bowman Gray	Justin Tyme	Bwmnwrck	28.016
Charlotte	Justin Tyme	Char_lap	11.733

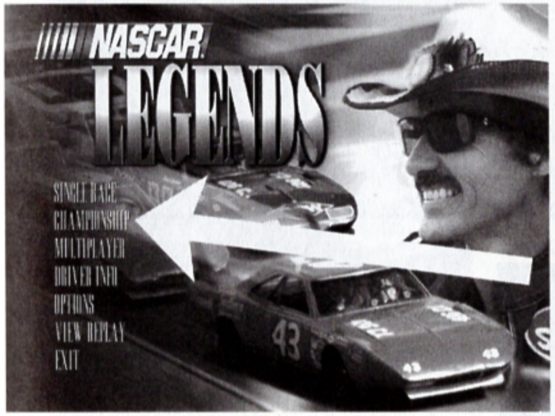
Replays are stored in RAM (Random Access Memory) until you decide to save them. If you leave the track without saving your replay, the replay is purged from RAM.



You can adjust the size of the Replay Buffer in NASCAR Legends. This is basically how much RAM you wish to set aside to hold replays during races. From the Main Menu, choose Options/Graphics. Near the lower right corner of the screen (as indicated by the arrow) you'll notice a setting labeled Replay Buffer. Set the buffer size to whatever you wish, between a minimum of 1 megabyte, all the way up to a maximum of 255 megabytes (more than you'd likely need to save an entire race). The length of your replays are determined by the size of the Replay Buffer. Using a small, 2 megabyte buffer size will result in shorter clips. It's doubtful you'd be able to capture more than a few laps with such a setting. Just how many laps you can save depends upon the size of the track. You'd obviously be able to pack more laps into 2 megabytes at Martinsville than you would, say, Riverside.

Going For All The Marbles- The 1970 NASCAR Championship

By now you've driven the car, looked at the various menus and probably changed several of the player preferences in NASCAR Legends. Only one thing left to do...go for a title! You've seen how Single Races allow you to participate in NASCAR Grand National events; these single races take place at the track of your choice. The Championship Season works the same way, with a few exceptions.



First, Championship Seasons follow a schedule of races; each race follows the same race settings you define prior to the beginning of your season. So, if you want the races to be 25% in length, you'll set that parameter before the first race begins. Once you've got the Championship Season set up and underway, you cannot go back and redefine race settings.

Second, the Championship Season is contested on each track from the 1970 NASCAR season that is installed on your computer system.

The 1970 Championship itself is decided by a points system that rewards consistency over a few impressive victories. The chart below shows you how many points you receive for each race, based on your finish:

Race Distance	*Points*
0-249 miles	*50 points for the winner, with one point less for each subsequent position. For example, if you finish 4th in a 100-mile event, you'll receive 47 points.*
250-399 miles	*100 points for the winner, with two points less for each subsequent position.*
400 miles or more	*150 points for the winner, with three points less for each subsequent position.*

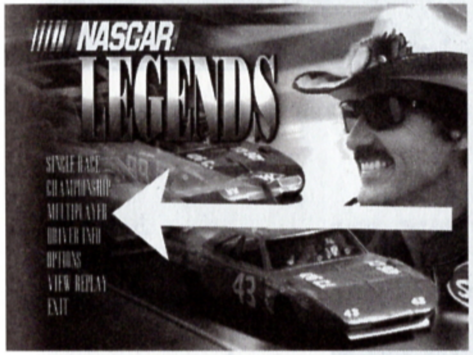
CHAMPIONSHIP

NASCAR Legends assigns points based on the total mileage of the actual event, regardless of the distance you've selected in the race preferences section. In other words, if you run a 10% race at Darlington, you are awarded the same number of points you'd get for finishing a full 100% race. At the end of the season, the driver with the most overall points is declared the 1970 NASCAR Grand National Champion.

You can save races and seasons whenever you want; there's no need to drink a pot of coffee and try to get through the entire schedule in one night!

Multiplayer Racing

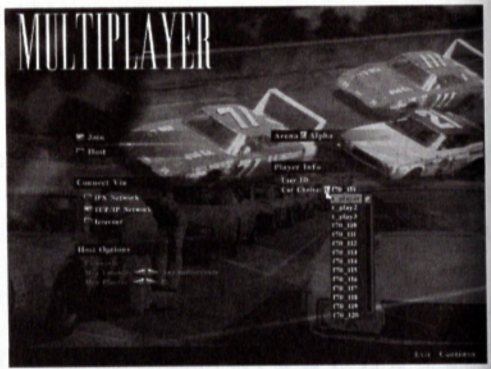
"I'm kicking everybody's butt in single races, and have already won more Championships than the Petty Enterprises boys," you say? How about putting your modem where your mouth is- with Multiplayer races!



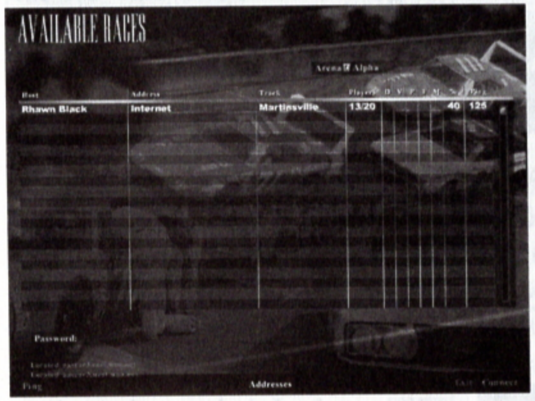
Using the built-in multiplayer capabilities in NASCAR Legends, you can race against a field full of human opponents…leave the computer cars off the track if you want to! To host or join a multiplayer race, make sure you've got your Internet connection up and running prior to launching NASCAR Legends. Then, click on the Multiplayer button found on the Main Menu (indicated by the arrow above). This takes you to a Multiplayer Connect screen where you can set the parameters of your own races, or look around for a race to join.

MULTIPLAYER

Click on the Join box to jump into an existing race; click on the Host box if you're going to create the race yourself. You'll need a high-speed Internet connection to Host races that have more than two or three cars in them.

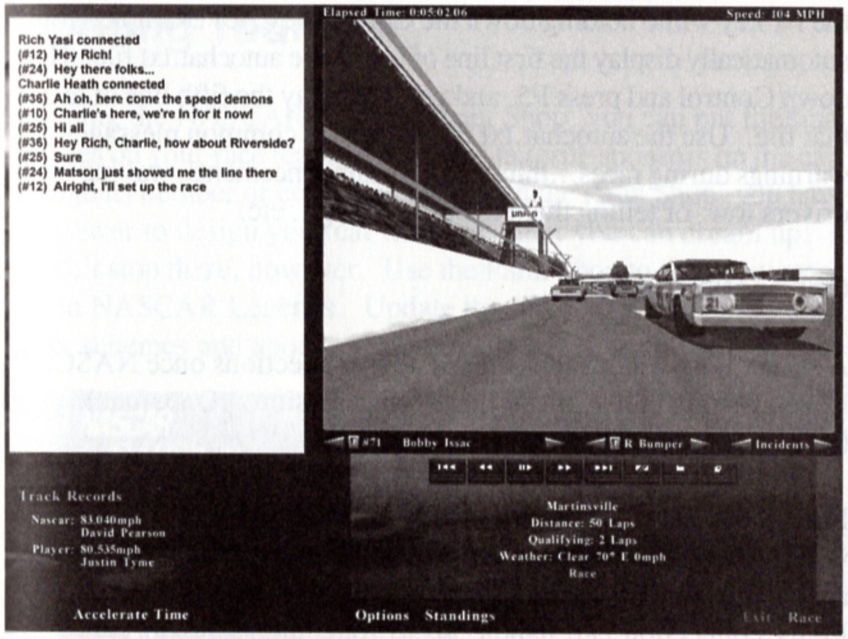

MULTIPLAYER
Join
Host
Connect Via
IPX Network
TCP/IP Network
Internet
Host Options
Arena Alpha
Player Info
Exit
Continue

Multiplayer races offer you the ability to pick the car you want to drive, and give yourself a name to use online. Using the Player Info area (as shown at right), type in a name and pick a car. Choose the type(s) of connections you plan to use. Click on the Continue button in the lower right corner once you've got the connection properties set.


AVAILABLE RACES
Arena Alpha
Host
Address
Track
Players
Password:
Ping
Addresses
Exit
Connect

Host	Address	Track	Players		
Rhawn Black	Internet	Martinsville	13/20	40	125

If you've decided to host your own event, you'll be prompted to set up all of the race properties (just like you did in the Single Race Settings area). If you wish to join an existing race, you'll see a chart of races that are available (like the picture shown here). To join a race, click on the Host's name (in this case it would be Rhawn Black) and then click on the Connect button in the lower right corner of the screen. Let's go ahead and join the Martinsville race. Be ready, Rhawn's a formidable short tracker! Certain races may require a password (this is up to the host) before you can join them. This feature allows leagues to prevent non-league members from joining their events.


Elapsed Time: 0:05:02.06
Speed: 104 MPH
#71 Bobby Issac
R Bumper
Incidents
Track Records
Accelerate Time
Options
Standings
Exit
Race

Rich Yasi connected
(#12) Hey Rich!
(#24) Hey there folks...
Charlie Heath connected
(#36) Ah oh, here come the speed demons
(#10) Charlie's here, we're in for it now!
(#25) Hi all
(#36) Hey Rich, Charlie, how about Riverside?
(#25) Sure
(#24) Matson just showed me the line there
(#12) Alright, I'll set up the race

Nascar: 83.040mph David Pearson
Player: 80.535mph Justin Tyme

Martinsville
Distance: 50 Laps
Qualifying: 2 Laps
Weather: Clear 70° E 0mph
Race

Once you connect to the race, click on the Chat button in the lower left corner to open the Chat window. Type your message and hit the Enter key. You can also chat while driving, by first pressing the 'T' key on the keyboard. After pressing 'T,' type the message and hit the Enter key. Don't get too yappy during races…keep those eyes on the road, Bud!

The Autochat feature allows you to send scripted messages to other drivers, with just a keystroke or two. You can have up to ten autochat messages built and ready to send. The autochat.txt file in the NASCAR Legends folder is a simple text file containing ten lines. Use the default text that's already there, or edit your own custom messages with any text editor. To use these autochat messages, hold down the Control key and press a function key, F1-F10. By pressing

the F1 key while holding down the Control key, for example, you'd automatically display the first line of text in the autochat.txt file. Hold down Control and press F5, and you'll display the fifth line of text in that file. Use the autochat.txt file to display common messages and warnings during races…things like pit announcements, waving other drivers low, or telling them to pass you high, etc.

Connection Issues

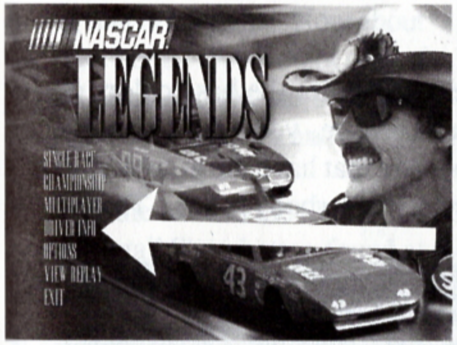
A server (Host) stops looking for new connections once NASCAR Legends transitions to the Qualifying session. Once qualifying begins, new players cannot join in.

Each client that connects to a server via a dial-up Internet connection will require a minimum of about 24,000bps of bandwidth. For an analog modem, this limits a server to a maximum of two clients. An ISDN connection can handle up to four clients reliably. Cable modems may require some special considerations that are outlined in the 'readme' file.

You can enter numeric (#.#.#.#) or symbolic (bob.fred.net) Host names if you wish. If you enter a symbolic name, it may take several seconds for the computer to translate the name. If it cannot, an error message will appear on the screen.

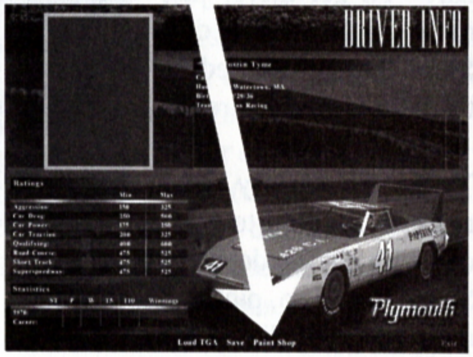
Painting Your Car

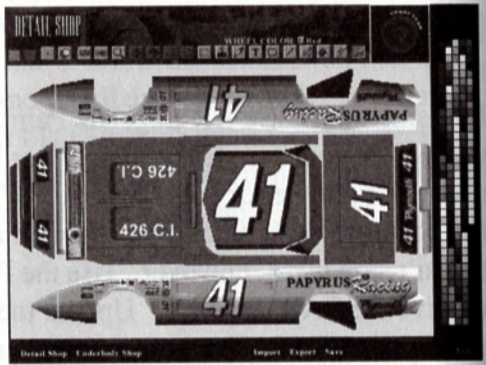
By using the NASCAR Legends Paint Shop, you can put the final touches on your race team. Paint your favorite sponsors on the car, change its number or color scheme. With the Paint Shop, you have the power to design your car in any manner you can dream up! It doesn't stop there, however. Use the Paint Shop to paint any stock car in NASCAR Legends. Update the NASCAR Grand National paint schemes and sponsors to another era. Create your favorite local dirt track cars…the capabilities are virtually endless.



To get to the Paint Shop, click on the Driver Info button at the Main Menu (as indicated by arrow at left). Choose a driver and click Driver Info (or Player Info).

When you've got the car you wish to paint selected, click on the Paint Shop button found just below the car itself (as shown by arrow at right). This takes you directly to the NASCAR Legends Paint Shop.

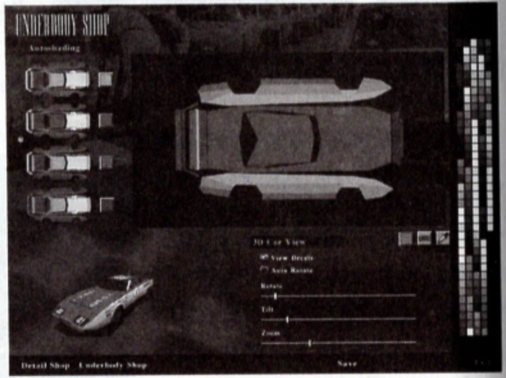



Detail Shop
Wheel Color
PAPYRUS Racing
41
426 C.I.
Detail Shop
Underbody Shop
Import
Export
Save

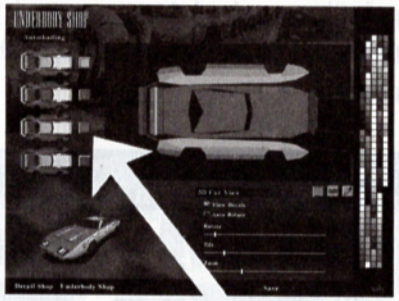
The Paint Shop basically consists of two screens: The Detail Shop (shown at right), and the Underbody Shop. Using these two screens, you can paint your car and its details- and even view it in 3D to make sure it's what you want!

The Underbody Shop

The Underbody Shop is where you'll paint the base colors of the car. If you have Car Textures turned on, you won't actually see much of the underbody paint; players that have the graphical detail turned down, however, may see only underbody colors. That's why it's a good idea to spend a few moments in the Underbody Shop, putting the basic colors on your car. To get there, just click on the Underbody Shop button, located at the bottom of the screen.


Underbody Shop
Autoshading
3D Car View
View Decals
Auto Rotate
Rotate
Tilt
Zoom
Detail Shop
Underbody Shop
Save

You can easily add realistic shading to your car with the Underbody Shop. To do so, pick a color from the palette on the right (just click on it) and then click on one of the five Autoshading areas to apply it. Each Autoshading box indicates what body parts get painted with each click (the autoshading boxes are indicated by the arrow below). The Autoshading boxes do just that: automatically applying a shaded mix of the chosen color to that area of the car. You can view the results of your work on the body panels shown on the screen. You can also forego the Autoshading feature and click directly on the body panels themselves. Sir, did you order the green rear wing? No problem, choose green and click on the rear wing parts. How about the blue hood? We've got one of those! Just choose the blue you want from the palette, and click on the hood.

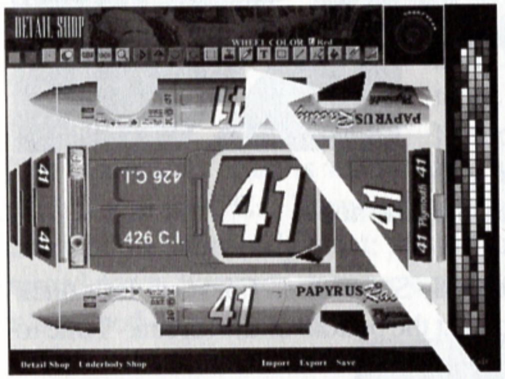

Underbody Shop
Autoshading
3D Car View
Detail Shop
Underbody Shop
Save

We'll come back to the Underbody Shop later. For now, let's click on the Detail Shop button found at the bottom of the screen. Time to add the glitter!

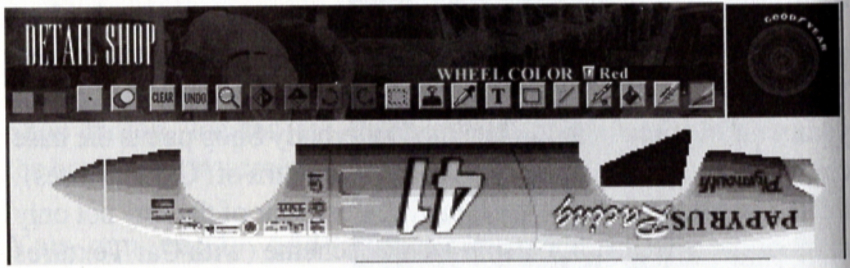
The Detail Shop

Welcome to the Detail Shop, the screen you'll spend the majority of your painting time with. While the Underbody Shop paints the base colors of the car (the colors you'd see if you turn off Car Textures), the Detail Shop is where you'll paint the exterior of the car- not only numbers and decals, but also it's color scheme (with Car Textures turned on in the Graphics Menu, the majority of the car is covered by the Detail Shop panels). But hey, don't just use the Detail Shop for numbers and decals; add hood pins, body lines, gas fillers and overflow valves. If it can be found on the outside of a stock car, you can probably paint it here. If you've used other computer-based

drawing and painting programs, you'll probably get a feel for the Detail Shop right away. If you haven't, don't sweat it. Painting cars is not difficult, and there's no spilled paint to clean up when you're done (remember, if you don't like the way a car looks as you try to paint it, you don't have to save it). Click the left button on the palette to choose foreground colors, or the right button to choose background colors.



All of the tools you'll use in the Detail Shop are centrally located in the upper right corner of the screen (as indicated by the arrow at left). With these tools, you can add and rotate text, numbers, logos and car body parts to your design. Detail Shop tools are explained thoroughly in the next few paragraphs.



Tool Type: Click on this button to reveal a pull-down menu of 3 tool types- 1) Blend, for complete coverage, 2) Anti-aliasing for removing jagged edges, 3) Smear, to help achieve a more natural look without involving foreground and background colors.

Flip and Rotate: Click on these buttons to manipulate the selected graphic, horizontally, vertically, or rotated in 90-degree increments.

Select Tool (Marquee): Click the left mouse button and hold it down as you drag it across an area you want to manipulate. Once you've selected an area, you can flip, rotate or paste it.

Text Tool: Click this button to reveal a text window. Inside the text window, choose from a variety of typefaces and sizes. The text will appear in the current foreground color. After you type your text, flip or rotate as necessary, and drag it over the area you want it in.

Stamp Tool: Right-click on this button to reveal an available selection of decals. Select the decal you want to apply and position it over the car part where you want to stamp it. Use the flip and rotate buttons to adjust the decal's orientation, if need be. Click the left mouse button to finalize the decal, sticking it in place.

CLEAR UNDO

Use the Clear button to erase all of the details off of the car. This starts you over with a clean slate, in the current foreground color. Click Undo to remove your most recent change. Use the Eyedropper tool to grab colors off of the car. This really helps when you're trying to match colors. Hold the eyedropper over a color you want to 'pick up.' Click the left mouse button to make that color the new foreground shade. Click the right button to assign it to the background shade.

Brush Thickness: Click on this button to reveal a pull-down menu of available brush widths.

Freehand Drawing Tool: Choose a color, click on the pencil tool and start drawing! Adjust the brush width and tool type buttons to your liking. Hold down the left mouse button to draw with the foreground color, or the right button to draw in the background hue.

Eraser Tool: Erases in the current color. Hold down the left mouse button to erase with the foreground color, or the right mouse button to erase with the background color.

Line Tool: Click and hold the left button (foreground color) or the right button (background color) to draw straight lines. Use the brush thickness and tool type settings to customize your lines.

Airbrush Tool: Use this tool to create spraycan effects on the car. Choose colors with either mouse button, position the cursor over the car panel you want to airbrush, and hold the mouse button down to apply spray. Move the mouse back and forth to paint layer after layer.

Paint Bucket Tool: Click on this tool to get the paint bucket icon. Position the paint bucket over a car panel, and click the left mouse button to fill with the foreground color, or the right button to fill with the background shade.

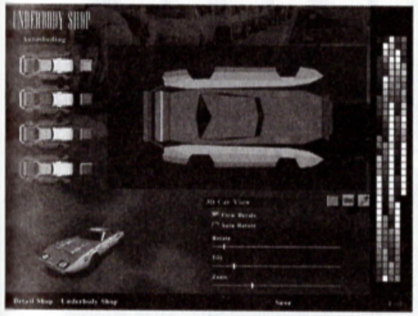
Shape Tool: Click the right mouse button over this icon to reveal different shapes you can draw. Select a shape and hold down a mouse button to draw in either selected color over a car panel.

Zoom Button: Click on this button to get in close, for fine, pixel-by-pixel work. Position the selection rectangle over the area you want to zoom to and click the mouse button.

Detail Shop Tips

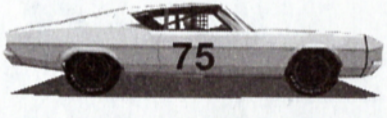
You can draw matching lines across several car panels at once with the Line Tool. For example, start a line at the top on the car's passenger side. Holding the mouse button down, drag the line across the roof and left side as well. One continuous line across three body panels!

Also, remember to draw shadows, gas caps, hood pins, exhaust pipes and other body characteristics on your car. That little sign the crew holds up on pit road? That's a copy of the roof of your car. Try to paint the roof in such a way that it looks good on the car, but makes a pretty darn nice sign too.



Once you have the details the way you want them, click back to the Underbody Shop to view the car in 3D. You'll see a replica of your handiwork in the lower left corner. To the right, notice that there are viewing controls to assist you in checking out your designs.

Click and drag any of the sliders to adjust the viewing angle. The car on the left will move accordingly. Check the Auto Rotate box to keep the car spinning constantly, 360 degrees. While the car is rotating, adjust the Tilt and Zoom until you get a good look at all sides of the car.

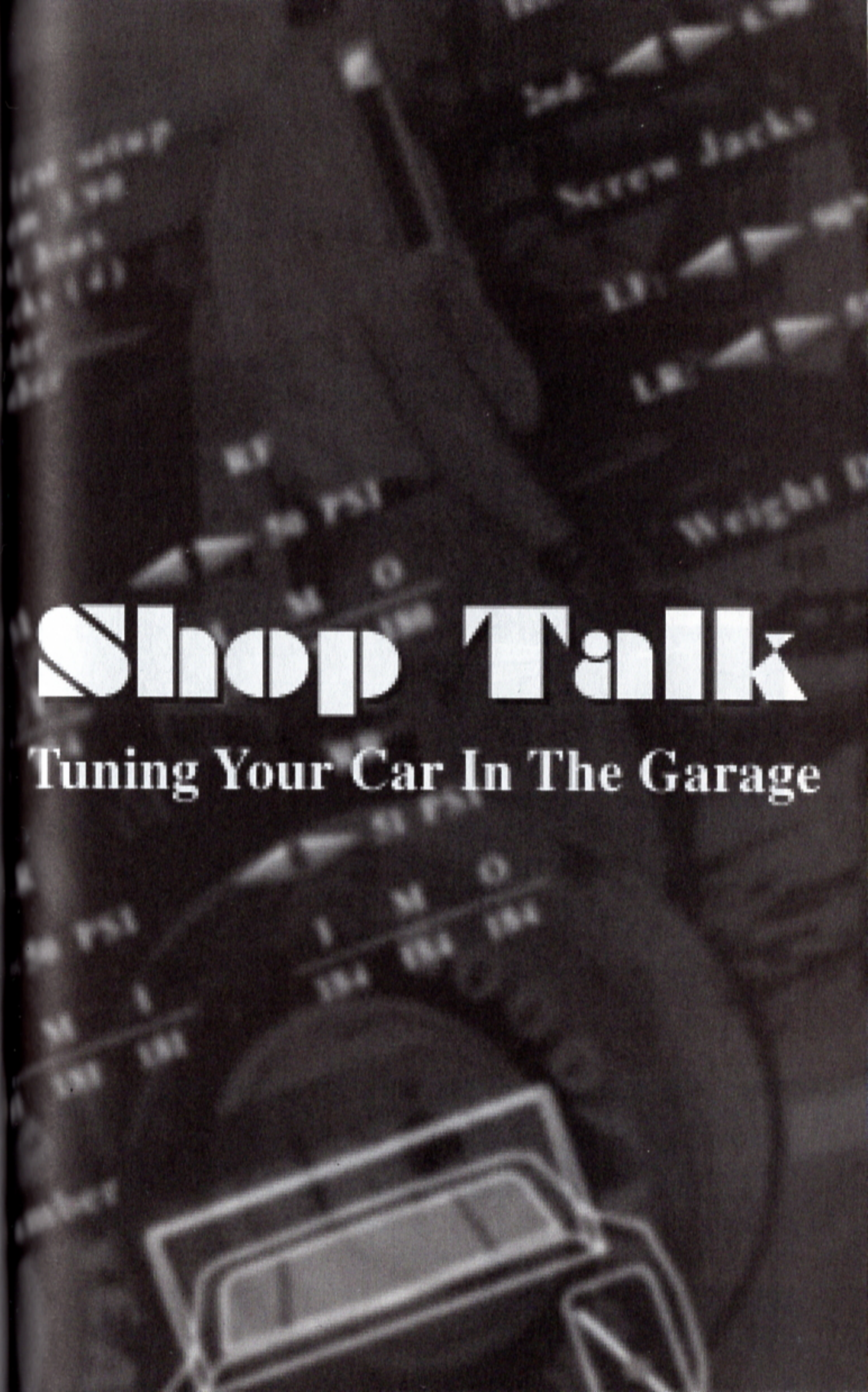


Uncheck the View Decals button if you want to see the underbody of the car alone.

Getting More Help

You can also use a scanner to capture logos and images to place on your cars. This requires a third-party paint program. There are dozens of sites on the Internet out there to guide you through this process. An excellent place to find them is listed below.

http://www.sierra.com/sierrasports/forums/motor/



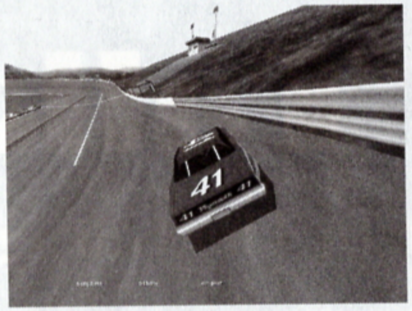
Shop Talk

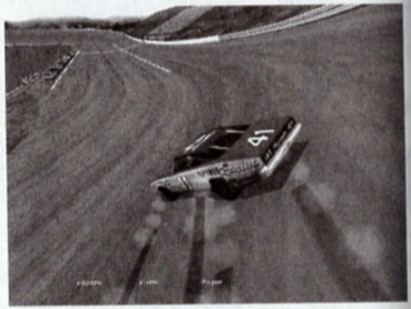
Tuning Your Car In The Garage

The NASCAR Garage

If you don't own the fastest car on the track, you can- by perfecting your driving techniques, and adjusting the car to better fit them. The next few pages will show you how to adjust your stock car to make it faster, better handling and longer lasting.

Before you start changing sway bars, adjusting tire pressures and moving those weight biases around, let's take a look at basic chassis behavior:





Understeer

Also called 'Push.'

Understeer occurs when the front wheels lose grip with the pavement before the rear wheels do. The car doesn't quite turn sharp enough unless the brakes are applied much harder than desirable, as it seems to slide out toward the wall. Cars that understeer are said to be 'too tight.'

Oversteer

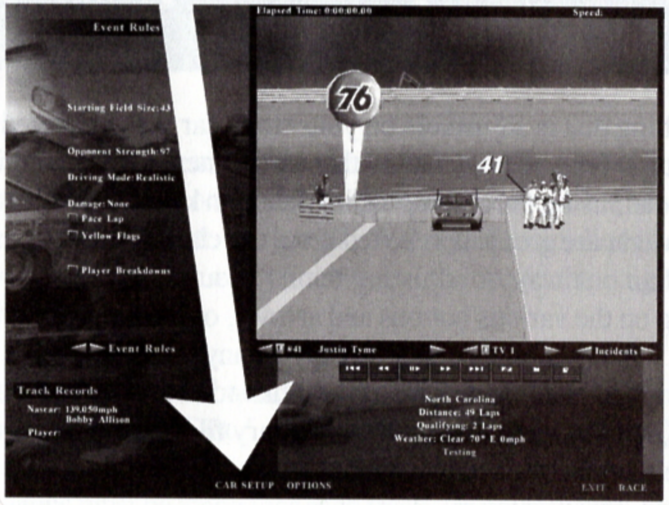
Also called 'Loose.'

Oversteer happens when the rear wheels lose grip with the pavement before the front wheels do. There is more grip at the front of the car than at the rear, so the car tends to fishtail as the back end spins around. The driver must release the throttle and brake carefully in order to maintain control of the car.

Going Inside The Garage

There are several pre-designed car setups included with NASCAR Legends. If you don't ever wish to fram your knuckles on a single adjustment, feel free to load one of the ready-made setups and race as hard as you can. But because car setups are as unique as the people that drive them, you'll probably get better results on the track if you spend a little time getting familiar with the garage area. Whether you simply wish to load a basic setup on your car, or turn wrenches late into the night, you will make these decisions using the Car Setup Menu.

From the Race Weekend Menu, click on Car Setup at the bottom of the screen (as indicated by large arrow below). Now you're in the garage, looking at the Car Setup Menu.

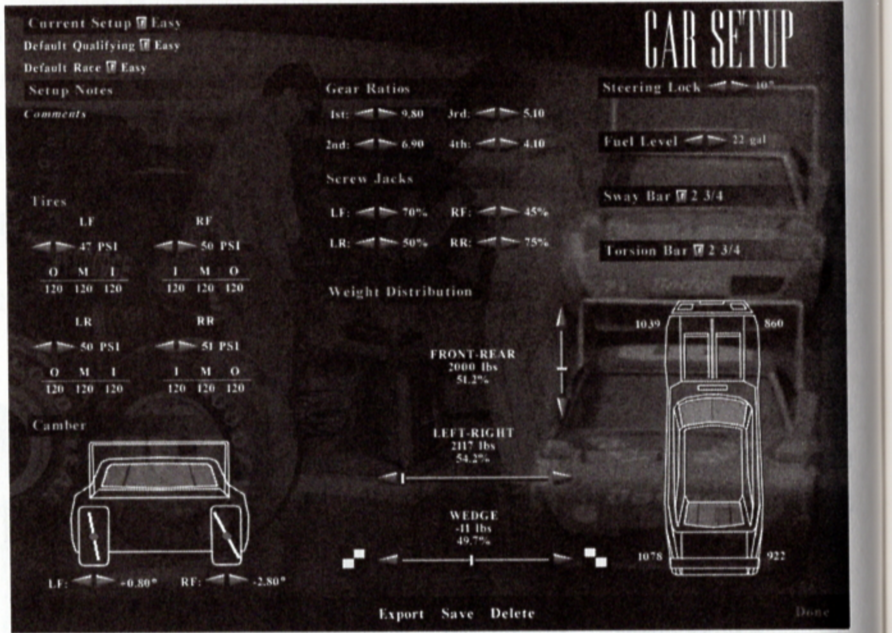


Starting Field Size: 43
Opponent Strength: 97
Driving Mode: Realistic
Damage: None
☐ Pace Lap
☐ Yellow Flags
☐ Player Breakdowns

Track Records
Nascar: 139.050mph Bobby Allison
Player:

North Carolina
Distance: 49 Laps
Qualifying: 2 Laps
Weather: Clear 70° E 0mph
Testing

Using The Car Setup Menu



Current Setup ▼ Easy
Default Qualifying ▼ Easy
Default Race ▼ Easy
Setup Notes
Comments

Gear Ratios
1st: 9.80
2nd: 6.90
3rd: 5.10
4th: 4.10

Screw Jacks
LF: 70%
RF: 45%
LR: 50%
RR: 75%

Steering Lock 10°
Fuel Level 22 gal
Sway Bar ▼ 2 3/4
Torsion Bar ▼ 2 3/4

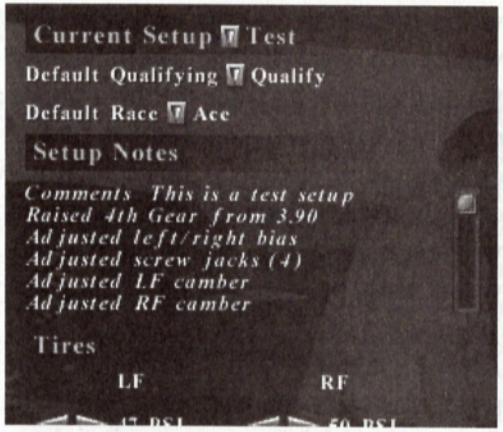
Tires
LF 47 PSI — O M I: 120 120 120
RF 50 PSI — I M O: 120 120 120
LR 50 PSI — O M I: 120 120 120
RR 51 PSI — I M O: 120 120 120

Weight Distribution
FRONT-REAR 2000 lbs 51.2%
LEFT-RIGHT 2117 lbs 54.2%
WEDGE -11 lbs 49.7%
1039 860 1078 922

Camber
LF: +0.80°
RF: -2.80°

Everything that is adjustable on your stock car is represented on the Car Setup Menu. Keep in mind that certain items are also adjustable on pit road, using the corresponding function keys. Items on the Car Setup Menu are grouped in boxed areas for clarity. Most items have more than one way of adjusting them. You can make changes by clicking on the various buttons and arrows, or clicking and dragging sliders. Or if you prefer, click directly on any numerical value shown and just type in the new figure you'd like to use. The bar along the bottom of the screen contains the necessary file management controls to Save, Delete or Export setups.

Loading And Saving Your Setups



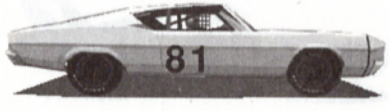
Current Setup ▼ Test
Default Qualifying ▼ Qualify
Default Race ▼ Ace
Setup Notes
Comments This is a test setup
Raised 4th Gear from 3.90
Adjusted left/right bias
Adjusted screw jacks (4)
Adjusted LF camber
Adjusted RF camber
Tires
LF RF

NASCAR Legends' Car Setup Menu allows you to have up to four different setups loaded at a time.

First, there's the Default Race Setup. Click on the arrow and load the setup you plan to use for the race itself. Once the race begins, the setup selected here will be the one automatically loaded for your car. The Default Qualifying Setup is the setup you'll use for the qualifying session. Click on its arrow and choose from available setups. When you elect to begin your qualifying run, whatever setup is loaded here will be what you qualify with.

The Current Setup indicates which setup file you're making adjustments to. Click on its arrow, choose from available setups and load the one you'd like to work with. When you're finished tweaking, save your setup under a new name, or overwrite the original file instead.

In the shot above, you'll notice that the setup we're working with at the moment is called 'Test.' We already have a setup called 'Qualify' selected as our qualifying setup, and the 'Ace' setup selected to race with. Setups must be loaded for each track. In other words, assuming



we've got the three setups loaded above for the current track (Atlanta), when we race at Michigan we'll have to load up to three more setups for that speedway. Once the three setups are loaded, as in our Atlanta example on the previous page, they will stay there until we decide to change them. Leave Atlanta, shut down NASCAR Legends and crunch some numbers with a spreadsheet, or type a document, whatever- next time you come back to Atlanta, those same setups will already be selected and waiting for you.

Ah, but there were four setups mentioned on the previous page…where's the last one? When you load a file as the Current Setup, you don't have to save it right away (although this is highly recommended). Load up the Atlanta Test setup you've made earlier, make a few tweaks to it, hit the track and it'll still be there on the Car Setup Menu when you return (though not saved yet). You might think of this as a 'Workspace Setup.'

To save new setups, click on the text name of the current setup. Type in the new name you'd like to give the current setup in the workspace, and hit the Enter key. You can also save setups by clicking on the Save button at the bottom of the Car Setup Menu, and following the prompts on your screen.

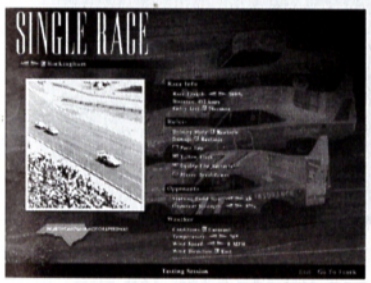
Keep an eye on that comment field. To change or add comments about the current setup, just click on the box next to the word 'Comments.' Type or edit the comments in the same manner you would using a word processor. Real NASCAR Grand National teams kept meticulous notes about car settings and tracks- so should you. It only takes an extra second or two, but the information that tends to wind up in the comment field is darn well worth having.

Building A Better Racecar

So many items to adjust, where do you start? There is no magical formula in chassis adjustment, no trade secret that Donnie Allison is keeping to himself, only sharing with his brother Bobby. The finest mechanics in auto racing have been known on occasion to throw their hands in the air, scratch their heads and walk away with dumb looks on their faces. Sometimes you'll nail it, sometimes you'll keep coming back to the garage…and back to the garage…and back to the- you get the idea.

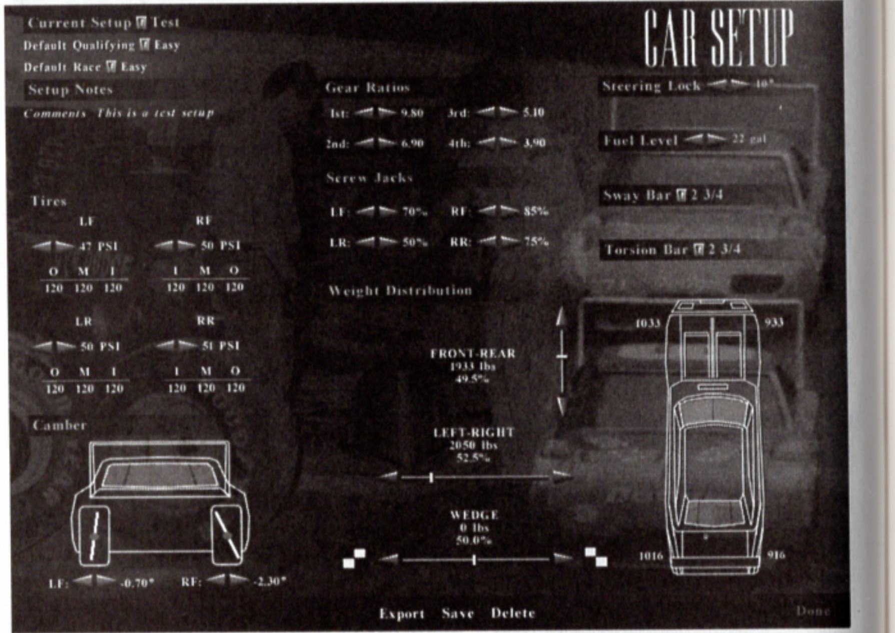
However, the process of building chassis setups can be demystified somewhat; and as long as you don't allow yourself to be intimidated by it, you'll probably pick up the basics in little time.

That said, here's what we're going to do: We'll pick a track, start with a slow setup and gradually transform it into one that is faster, and better handling, step-by-step. For this procedure, let's rule out Riverside, since whatever knowledge you glean will only apply to that track. Let's also avoid Alabama; it's a fairly easy track to build a setup for, but it stands alone as a no-braking/slight-lifting mammoth track. Something mid-range might be appropriate, that way you could transfer what you learn to several tracks afterward. Something in the mile category; something like…Rockingham. The "Rock" it is.



Click on the Testing Session button at the bottom of the screen. This will give you a clear track to work with as you adjust the car.

Rockingham offers us fast enough speeds, but still requires plenty of handling in order to turn fast laps, and it's got two distinct corners- so we're off to Rockingham! Select Rockingham, click on Testing Session (we don't want to hassle with other traffic while we're setting up our car) and create the setup shown below. Save it under the name 'Test.' This is a slow, easy setup that we'll attempt to tweak into a more competitive car.



Current Setup: Test
Default Qualifying: Easy
Default Race: Easy
Setup Notes
Comments: This is a test setup

Gear Ratios
1st: 9.80
2nd: 6.90
3rd: 5.10
4th: 3.90

Screw Jacks
LF: 70%
RF: 85%
LR: 50%
RR: 75%

Steering Lock: 10°
Fuel Level: 22 gal
Sway Bar: 2 3/4
Torsion Bar: 2 3/4

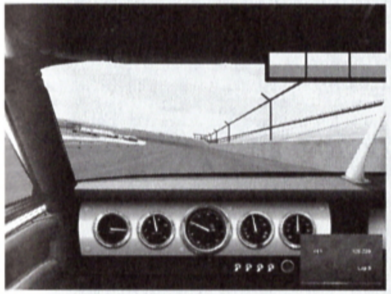
Tires
LF: 47 PSI (O 120, M 120, I 120)
RF: 50 PSI (I 120, M 120, O 120)
LR: 50 PSI (O 120, M 120, I 120)
RR: 51 PSI (I 120, M 120, O 120)

Weight Distribution
FRONT-REAR: 1933 lbs, 49.5%
LEFT-RIGHT: 2050 lbs, 52.5%
WEDGE: 0 lbs, 50.0%
1033 / 933 / 1016 / 916

Camber
LF: -0.70°
RF: -2.30°

Let's get fourth gear set first; take the car out for a ten-lap run, and keep your eye on the tachometer. Drive controlled laps, without downshifting in the turns. We'll see you back on pit road in about five minutes.

Did you notice that the engine only wound up to around 6,500 rpms at the end of the straights? The motor hardly revved up, and your best lap was probably only in the neighborhood of 126.4 mph. That means we've got a small amount of room we can play with to get more rpms working for us. Let's move fourth gear up, from 3.90 to 4.10. Save the setup and take the car back out onto the track for another ten-lap session, paying specific attention to the tach and acceleration.

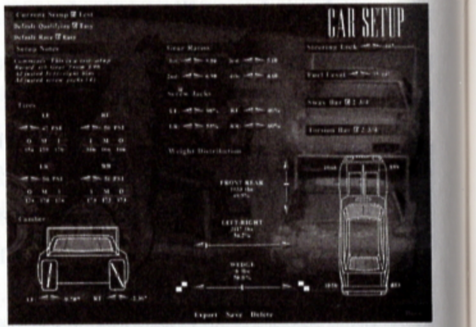


Look at the tachometer as you reach the end of the straightaways, just before you brake. The tach needle should just barely stop short of 8,000 rpms at the ends of straights. Our test car is only pulling about 6,500 rpms, so we'll change fourth gear.

This time, the car hit 7,500 rpms as you reached the end of the straights, right? We'll leave fourth gear set at 4.10 for the moment, but keep in mind that other adjustments may cause the rpms to increase- if so, we'll have to back fourth gear down accordingly.

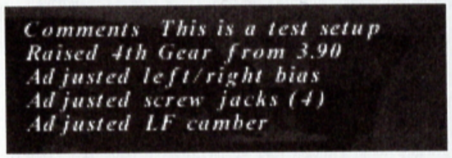
Now it's time to deal with the chassis itself, particularly the way the car pushes out toward the wall as it leaves the corners. Our Test setup doesn't feel like a setup that keeps the car glued to the bottom of the corners like it should. Notice on the Car Setup Menu that the left/right weight bias is not fully adjusted to the left. Move the slider all the way left. By placing more weight on the left side of the car (and less on the right), the car will turn better. Now, run ten more laps and bring the car back in for another look-see.

This time, the car did some laps in the 129.4 mph range, so we know



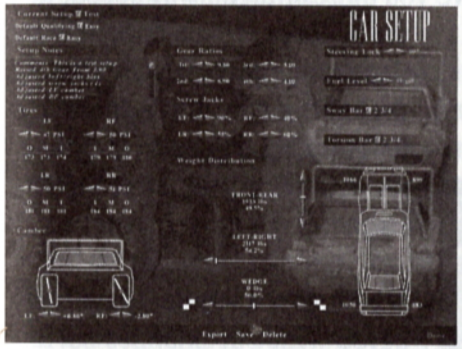
we're heading in the right direction. Now we'll start honing the tire settings to find more grip. Notice that the car has a terrible, pushy feeling going into turns? Let's tweak the four screw jacks, softening up the right front. Time for, you guessed it- another ten lap test drive, after saving our changes.

Up to 130+ mph now, and the right front temps are almost even, all the way across the tire. But let's do something about those ugly left front temps. Move the left front camber from -0.70 to +0.80. As you're sitting in the driver's seat of a stock car, this suspension adjustment will bring the top of the left front tire outward a little more. If the camber here was set to zero, the tire would point straight up, ninety degrees from the ground. Negative camber settings would move the top of the tire inward. We want to bring it out some instead, so that we get the a bigger contact patch on the left front, reducing stress on the right front.


Comments This is a test setup
Raised 4th Gear from 3.90
Adjusted left/right bias
Adjusted screw jacks (4)
Adjusted LF camber

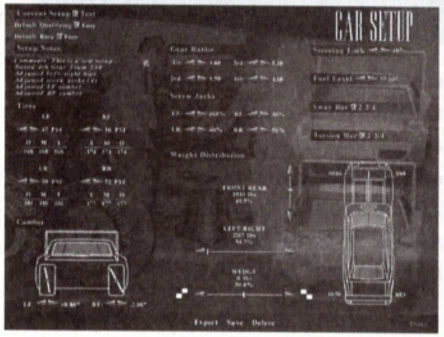
Use the Setup Notes area to keep track of all of the changes as you apply them. This way it will be easier to undo changes that don't improve the car. You can also use this area to make notes about how a setup should be driven. For instance, you might note the line you're driving around the track, or how many laps you can drive before the right front tire wears out.

Ten more test laps now reveal that the car is capable of those mid-131 mph laps with ease. Now the right front camber needs a tweak, based on the new tire temperatures. We can pick up some more grip here by increasing the amount of negative camber on this wheel. Let's move it from -2.30 to -2.80.



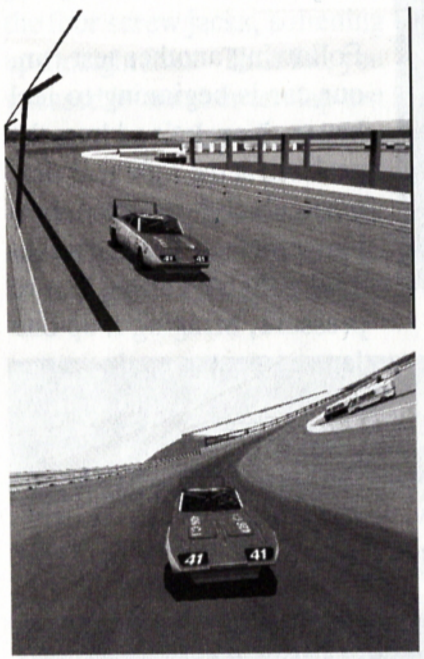
Following another test run, our car is beginning to feel better. Now let's address the problem at the right rear tire, particularly, its excessive temperature. We'll combat this by slightly raising the tire pressure, bringing it up one notch to 52 psi. Time for another ten lap segment to evaluate our work.

Now let's do something about the way the car feels in the corners. It still feels like the car wants to crawl up toward the wall as we drive it into and out of the turns. To counter this, we'll soften the right rear screw jack. Knock it down to 50%. This will help the car grab a little better, and further reduce the stress on the right rear tire. Stiffen the left rear screw jack up to 60%. We want more weight transfer to occur on the left side of the car in the corners; this will give us more grip on the right side.



Ten more laps.

We're scraping 132.5 mph now with the car; let's make one more change to the screw jacks. Raise the left front screw jack to fully stiff; stiffer shocks generally give you more straightaway speed, and the temperature readings indicate that we're nowhere near abusing the left front tire at this point. Put ten more laps in, just to make sure we can handle the stiffer suspension.



Checking replay angles confirms what we feel in the cockpit- the car sticks to the bottom of the turns, while reeling off laps above 132 mph. Now, we could take this car to Atlanta, or other tracks similar in size, and use it as a baseline to begin building from.

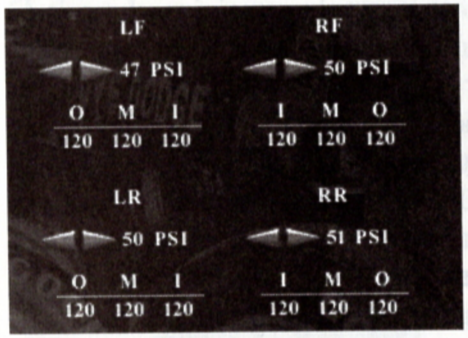
No problem, the car seems to agree with our changes so far. Those 132.5 mph laps have now become routine, once the tires get warmed up. Where do we go from here? Since the car still feels a tad 'pushy,' let's give it some overall stiffness in the suspension to help it hug the bottom of the track. For this, we'll replace the front sway bar and rear torsion bar.

Up to now, our car has been using the softest bars available. Let's go up a couple of notches, trying a stiffer three-and-a-quarter inch front sway bar. We'll take the rear torsion bar one degree stiffer than it was, up to three inches. By using a slightly stiffer front bar than rear, we'll keep more downforce on the nose of the car as we enter each corner. This will help us maintain better overall cornering speed. You know the drill, note the changes, save the setup and hit the track.

Wow. Within ten laps, the car now hits low 133 mph laps consistently. That's nearly a seven-mile-per-hour improvement over where we started. There is probably still more room for adjustment in the sway/torsion bars, but other than that, the only remaining chore is to experiment some with different Rockingham lines. Eventually you'll want to take the car out for a full fuel run (about 70 laps at Rockingham) to see how it behaves overall. Take note of how well the tires hold up; you should still have a tiny amount of rubber left on the right front tire as the car runs out of gas. If the engine overheats, you'll have to bring fourth gear back down to 4.05. If your tires wear out too quickly, you'll need to alter your driving style or make further adjustments in the garage to reduce the stress on them.

The Significance Of Tire Temperatures

Tire temperatures are perhaps the most significant barometer of how well your car's chassis is handling. Pay close attention to them, more often than not they'll reveal what areas of your setup are in need of work.



LF			RF		
47 PSI			50 PSI		
O	M	I	I	M	O
120	120	120	120	120	120
LR			**RR**		
50 PSI			51 PSI		
O	M	I	I	M	O
120	120	120	120	120	120

When your car first rolls onto the track, its bias-ply tires are relatively cool. As you drive the car, however, the tires build up heat inside them. Exactly how much heat builds up in each tire is directly related to driving style, speed, weather conditions and chassis setup.

Each tire's optimum operating temperature is between one-hundred-and-fifty and two-hundred degrees Fahrenheit. If the tires are allowed to build more heat than this over a period of time, chances are they will wear out much quicker than they should. In general, the hotter a tire gets, the more stress it is enduring. If the tires are much lower in temperature than two-hundred degrees, it means the tires are not necessarily providing maximum grip.

Get in the habit of checking tire temperatures before you make any adjustments to your stock car. Through the marvel of space-age technology, your crew will provide you with temperature readings from three key areas of the tire surfaces: The Outer (O) edge, the Middle (M) of the tire, and the Inner (I) edge. The part of the tire that is spending the greatest amount of time touching the pavement will be hottest, while the part of the tire that is gripping the least will be the coolest.

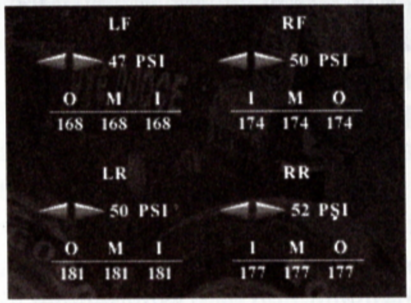
If one tire's overall temperature is hotter than the others, then that tire is undergoing the greatest amount of stress, given the way the car is set up and being driven. You'll probably have to soften the suspension, slow down or look for other ways to reduce the temperature at that particular wheel. Conversely, if one of the tires is too cold, you may want to look at ways of putting more stress on that tire, in order to distribute grip evenly. You'll also want to even out the temperatures across each tire, to the best of your ability. If all three temperature readings are even on a particular tire, you can expect that tire to last longer since it is wearing equally.

Tire temperatures are available to you at any time when you visit the garage. They are located on the Car Setup Menu, on the left side. You can also view current tire temperatures as you drive (just don't try it in heavy traffic). Just press the F4 key to display tire temperature information while in the cockpit.

Tire Pressure Adjustments

The tire pressure in each wheel affects several areas. First off, the profile of a tire (whether it's saggy or firm) can determine the tire's overall performance. Over-inflated tires will bulge in the center, causing the center temperature reading to be higher than the outer edges. Under-inflated tires sag, causing the outer edges to be hotter.

Tires with higher pressures will be firmer, and often faster on the straightaways. Keep in mind, though, that an overinflated tire can also produce negative results. Tires that are too firm can produce less grip in the corners, because so little of the tire's surface is actually touching pavement. Under-inflation creates softer, slower tires (because of an increase in the amount of 'rolling drag') that grip in a more forgiving manner.



LF			RF		
47 PSI			50 PSI		
O	M	I	I	M	O
168	168	168	174	174	174
LR			RR		
50 PSI			52 PSI		
O	M	I	I	M	O
181	181	181	177	177	177

Change tire pressures in the garage by clicking on the gold arrows corresponding to each tire. The left arrow lowers the pressure, while clicks on the right arrow raise the psi. Remember that you can also have the pressures changed while on pit road by using the F5 key.

Each tire is prefilled with compressed air. Unfortunately, the humidity of air can change drastically inside a tire, making it difficult for the crew to determine what the appropriate tire pressure should be. You may have to tweak air pressures throughout a race in order to find the right combination of handling and tire wear.

Tires mean everything when it comes to race speeds. When the tires are new and properly installed, they have maximum grip. As the rubber is consumed, however, you'll notice that you can't quite race through the turns like you could earlier. Eventually, it'll be time to head for the pits and put the tire changers to work.

To adjust tire pressures, run a few laps to get accurate temperature readings. Adjust the pressures as necessary to even the temperatures out. Tires that are too hot overall may benefit from raising the pressure, while a tire that is too cold may better serve you with less inflation.

Just remember that it's all a tradeoff- fill up the tires for more straightaway speed and shorter life, or reduce the pressures for better cornering performance and possibly longer life.

Tire Rundown

Even Tire Temperatures generally provide the best grip.

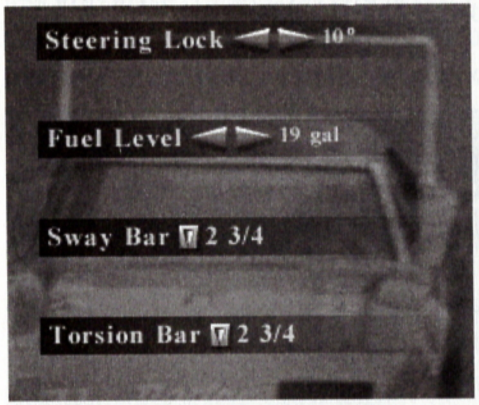
An underinflated tire will sag, creating more rolling drag while making the tire run hotter. A stickier tire overall.

An overinflated tire will be stiffer, creating a greater shock rate in the tire while making it run cooler. A firmer, faster tire.

Many handling problems can be rectified by simply changing tire pressures.

Fuel Economy

Your NASCAR Grand National stock car consumes a very high octane blend of gasoline. Octane levels indicate the fuel's ability to resist premature detonation and burn evenly inside the engine. The higher the octane rating, the more anti-knock additives found in the gasoline, an absolute for high-performance racing motors.



Steering Lock 10°

Fuel Level 19 gal

Sway Bar 2 3/4

Torsion Bar 2 3/4

During actual race weekends, the fuel level section on the Car Setup Menu will appear greyed out. You will not be able to specify amounts, the car will always leave the garage with a full tank. During Testing Sessions, however, you can set the fuel level to whatever amount you wish- useful for getting familiar with how the car feels under different fuel payloads.

Your car's fuel capacity is 22 U.S. gallons, per official NASCAR rules. Because of the minimum weight guidelines set forth by NASCAR, the car must be 'topped off' prior to qualifying sessions. You cannot put just enough gas in the tank to make your qualifying attempt- the tank has to be full. Because of this fact, you can only specify the amount of fuel you want in the tank during Testing Sessions, and once races have begun. Other than that, your Crew Chief will make sure the car is filled prior to the start of every Qualifying and Race Session. "Why should I wait for a fill-up when I only need five gallons to finish the race?" you ask. Relax. During your last pit stop, your Crew Chief will calculate how much fuel you need to finish. You'll get that amount, plus a tad extra just to make sure you can reach the finish line. You can calculate this figure yourself if you'd like. Use the F3 key and adjust the 'Fill To' value to the desired setting. Most drivers will find it more comfortable to probably just let the Crew Chief do the math for you here- after all, it's his hind-end on the line if he's wrong, eh?

Specifying how much fuel you want during Testing Sessions can be useful. By filling the fuel tank to different levels, you can easily get a feel for how your car setup behaves as the tank empties. This helps by not forcing you to drive several laps just to see what happens when you run low on fuel.

Remember, weight of the race car plays a key role in how the car handles at high speeds. As your fuel tank empties, the handling will change. After all, you've got roughly 150 lbs. of fuel in the car when you leave pit road on a full tank.

Fuel Rundown

When the tank is full, the car may have less top speed than when it is near empty. The extra weight of fuel can slow the car down some.

With a tank near empty, the car may run faster. Keep an eye on the tachometer to ensure you're not over-stressing the engine when the fuel runs low.

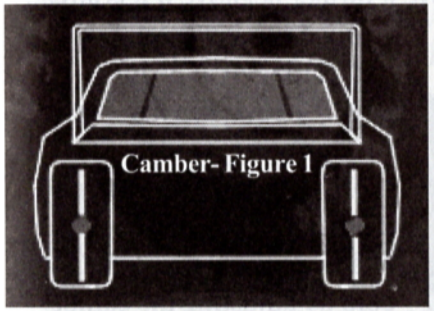
Sticking By Suspension

With the Car Setup Menu, you'll dedicate very little time toward the engine of your car. The majority of fine tuning will occur in the suspension of your racecar. If you read the previous pages that gave a sample tutorial on the setup process, then you probably have a feel for what to do with the Car Setup Menu. Drive a few laps, note the car's behavior, pull up the Car Setup Menu, adjust one item, drive some more laps, return to the Car Setup Menu, make another adjustment, and so on. It may sound repetitive, but that routine is pretty much what real NASCAR Grand National crews endure every weekend, minus the frammed knuckles, pressures to perform for sponsors, and personnel limitations. Mundane, yes, sometimes…but when you hit on something, when you figure out something the other drivers don't know, when you really get it right- it's an exhilarating feeling!

Chassis setups differ from track to track, and must be built to accomodate each driver's individual characteristics. Trying to put together a setup that is 'all things to all drivers' just doesn't happen in the real world. Even the default setups in this simulation, built by some of the best online racers going, will probably require a minor tweak or two to suit your skills.

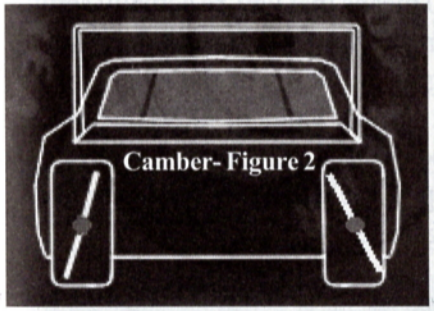
Don't be afraid to tinker with the suspension, just remember to save your changes to a new file. If you get it wrong, you still have the old version to return to; if you get it right, start practicing your victory lane speech!

Camber At The Front



Camber- Figure 1

When your car is parked on flat pavement, it's front and rear wheels are perpendicular to the ground, standing straight up. In this position, the camber of each wheel is 'zero' (see figure one at left). As the car is driven at high speed, downforce is generated; this downforce presses the car down, causing part of the tire surfaces to no longer be in contact with the pavement (as seen in figure two, below left).

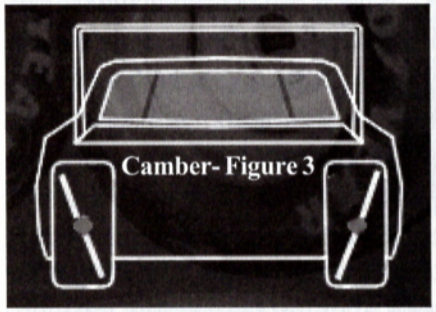


Camber- Figure 2

The camber of the rear wheels is not adjustable. You can adjust the camber of the front wheels though. The idea here is to set the camber so that your front wheels have as much rubber touching the ground as possible.

By adjusting the camber to move a front tire outward at the top of the wheel (away from the engine), you are adding *positive* camber. You can see an example of this on the next page, in figure three. By moving the camber to a *negative* value, the top of the wheel will be closer to the engine, like the diagram in figure two, above, shows. Now that you know what camber is all about, how can you determine when/why/how to adjust it? Very simple. Remember, those tire temperature readings give you valuable information!

Basically, if a tire is too hot on its outer-most edge, you'll need to bring the top of the tire in some. Reduce the camber if it's already a positive value, such as +1.20; move it further negative if it is already a negative value, such as -0.80. The process is reversed for a tire that is too hot at its inner-most edge. Move the tire outward by applying values that are more in the positive direction. You can also direct more heat to an edge of the tire that's too cold by adjusting the camber.


Camber- Figure 3

The values themselves represent inches. For instance, a left front camber value of +1.70 means that you're actually setting the suspension up so that the left front wheel will be one-point-seven inches further away from the engine at the top of the wheel than it will be at the bottom. A left front camber value of -0.80 means that the top of the left front tire will be eight-tenths of an inch closer to the engine compartment at the top of the wheel than at the bottom. Camber is only adjustable in the garage.

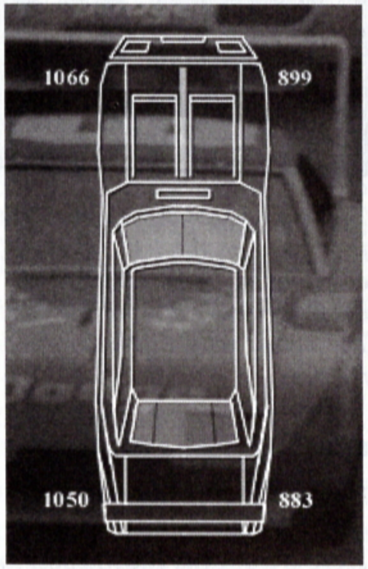
Camber Rundown

Negative camber moves the top of the tire more inward, to equalize tire temps or generate more heat on the inside edge of a tire.

Positive camber moves the top of the tire more outward than the bottom, to put more heat on the outer edge.

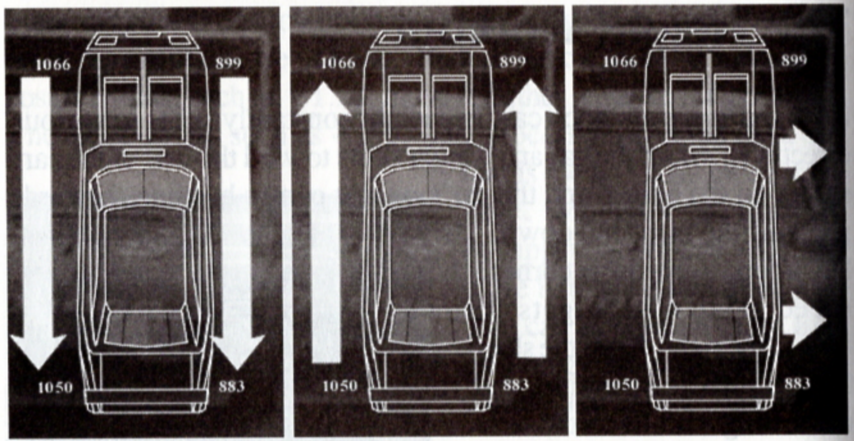
The Weight Workout

As you drive your stock car, its weight constantly shifts in various directions. Mash the gas and weight shifts toward the rear of the car; stomp on the brakes and the car's weight comes hurtling forward, pressing the front end down. Drive left around a speedway corner at high speed, and weight gets thrown toward the right. Take the sharp right hairpin turn at Riverside, and your car's weight shifts to the left. You get the basic idea.



Now, imagine being able to position the static weight of your racecar so that those shifts of weight work in your favor...ah, now we're on to something. We could put more of the car's static weight in the rear; this would make the chassis feel looser under braking, because more weight would be transferring from the rear of the car toward its front.

Remember our Rockingham experiment a few pages back? Our car hugged the corners better when we moved a majority of its left/right weight to the left side of the car. That's because when a car turns left, centrifugal force throws the car's weight toward the right. By loading more weight on the left side of the car to begin with, the car will provide you with better grip on the right side. In a road course



The three images above show what happens to the car's weight as you drive. In the image on the left, weight is shifted toward the rear of the car under acceleration. In the center image, weight is transferred toward the front of the car under heavy braking. At right, the car is being driven through a left turn. The chassis weight shifts toward the outside of the turn, in this case toward the right.

setup, you may want the weight dead center, to accomodate left and right turns.

Here's a simple illustration to remember: On a speedway car that's only going to be driven through left corners, think of the left side of the car as the 'throw' side. Think of the right side of the car as the 'catch' side. When you accelerate, the front of the car will be doing some throwing and the rear will do the catching. When you hit the brakes, the front of the car will catch for the rear. Now we'll introduce one more weight to the illustration- cross weight, or as it is more commonly known, 'wedge.'

Your stock car must weigh at least 3,900 lbs. in order to pass inspection. NASCAR Legends maintains this weight for your car, so you don't have to worry about it like the actual race teams do. Of that 3,900 lbs., NASCAR rules allow up to 1,900 on any side of the chassis- that means up to 1,900 lbs. on the front or rear, and no more than 1,900 lbs. on the left or right sides.

Actual stock cars weigh a bit less than the required minimum. The frame of the stock car is tubular; teams will add blocks of lead inside the frame rails of the chassis to meet NASCAR's weight requirements. These blocks of lead can be positioned inside the chassis anywhere they're needed; this makes it easy for the crew to move those weight biases around as needed. Want more weight on the left side? No problem, a crew member will simply slide the lead blocks more toward the left. How about more weight up front? No sweat, simply have your crew slide the leaded blocks toward the front end of the chassis.

But what about this cross weight thing? Wedge, they call it. O.K., here it is in a nutshell. Cross weight adjustments allow you to specify how much of the car's static weight gets applied to each wheel *individually*. Left bias helps the car turn left. Front/rear bias can help the car enter or leave turns in a more desirable manner. Cross weight can give you that bite in the right front wheel. It's good for entering turns, it's good for leaving them. Specifically, you're working with the amount of weight distributed between the left rear and the right front tires. You could draw a diagonal line from the left rear to the right front of your car, and that would represent cross weight. So, putting more weight on the right front wheel subtracts weight from the left rear; removing weight from the right front wheel adds weight to the left rear.

How And When To Adjust The Weight Bias

For the most part, you'll want as much weight as you can get on the left side of the car for ovals. This includes short tracks, mile tracks, and superspeedways. At Riverside, you may want the weight evenly balanced between the left and right sides…or maybe not. Take a look at that road course- if more of the important corners (o.k., they're *all* important!) are right handers, you may want to think about putting some of that extra weight on the right side of the chassis.

For front/rear bias adjustments, more rear weight will tend to help the chassis oversteer (feel loose). This oversteer can sometimes be difficult to control under hard braking, but really help get the car into a state of turning a little sooner. More front weight will cause the chassis to understeer as you brake (feel tight). This is preferable on many tracks because the car will feel more in control as you brake.

Positive cross weight (more weight on the right front tire) will help the car plant and turn better, but you've got to consider the amount of stress the right front tire is already encountering. Too much cross weight can burn up the right front tire prematurely. Since the cross weight can be easily adjusted by your crew while in the pits, you may find it necessary to build your chassis setups with the cross weight set somewhere close to zero; that way you can have the crew make wedge adjustments on pit road as needed. Car too tight? Have the crew remove some wedge. Car too loose? Tighten it up by increasing the cross weight.

The cross weight gets adjusted by a crew member, who inserts a wrench through a small opening in the car's rear window. As the wrench is turned, the left rear wheel spring gets compressed to remove wedge; turning the wrench in the opposite direction decompresses the left rear spring, causing more weight to shift toward the right front of the chassis. This adds wedge to the car. Each full rotation of the wrench adds or subtracts five pounds of wedge. If you hear someone say they added two rounds, this means they shifted about ten pounds of weight toward the right front of the chassis.

Weight Rundown

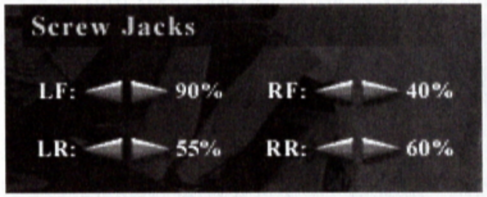
Left/Right Bias adjustments: Slide this value toward the left to add weight to the left side of the chassis, subtracted from the right. Helps the car turn left better.

Front/Rear Bias adjustments: Move the slider forward to add more weight to the front of the car, subtracting from the rear. This increase the amount of understeer. Move the slider backward to add more weight to the rearend, while reducing the amount of weight on the front. This increases the amount of oversteer in the chassis.

Cross Weight: Diagonal weight on the chassis, specifically the relationship between the weight at the left rear wheel compared to the weight at the right front wheel. Add more cross weight (wedge) to tighten up the chassis. Reduce cross weight to loosen up the chassis. Also adjustable on pit road.

Screw Jacks

Your car is equipped with an adjustable screw jack mounted at each wheel. Screw jacks allow the springs to compress or expand; this creates different effects in the suspension and helps stabilize the car's chassis during high speed turns.



Screw Jacks

LF: 90%

RF: 40%

LR: 55%

RR: 60%

Stiffer screw jacks produce quicker response from the chassis because it is able to 'reset' faster after hard cornering or braking. Softer screw jacks provide a more forgiving chassis.

More weight is transferred at the wheel that is stiffest. If your left front screw jack is set much stiffer than your other three, for example, more weight will transfer at the left front wheel than at the others. Consequently, this would increase the stress applied to the left front tire- not a bad thing, since the left front wheel usually suffers the least amount of abuse anyway.

Stiffer screw jacks will create a wheel that rolls better on straightaways, while softer screw jacks will make cornering easier. You can see the effects of these settings yourself at a high speed track like Atlanta International Raceway. Set all of your screw jacks to something soft, say, 10%. Head out to the track and run some laps; you'll notice that the car is very sluggish on the straights, but you could probably take the corners with your eyes closed. Now bring the screw jack stiffness up to 100% on all four wheels. This time, you should notice that the car is faster on the straightaways, but probably difficult to corner with.

Now that you've seen firsthand how the screw jacks affect handling, where do you begin to make adjustments on them? There are no hard, fast rules for adjusting them, unfortunately. You'll have to spend some time experimenting with different settings to come up with some combinations that suit your driving tactics. There are some shortcuts, however, that might provide you with a starting point. Load up some of the various setups that came with NASCAR Legends, at several different tracks. Take note of the screw jack settings and how they work together- you'll begin to see a pattern or two emerge. In most cases, the left front wheel will be the stiffest. In several setups you'll notice that the right front wheel will be the softest (remember our 'throw and catch' theory when we talked about weight transfer a few pages back).

Typically, though, you'll want to begin with front screw jacks that are set a little bit stiffer than the rear ones. This will create a slight amount of understeer in the car, making it safer to drive. As you adjust the screw jacks, remember to take into account temperature, track design, straightaway speeds and banking- all of which play a part in how the suspension performs.

To adjust the car's screw jacks, you must be in the garage (at the Car Setup Menu) or pits (use the F7 key to specify the settings). Click on the arrows by each screw jack to adjust stiffness. The higher the percentage (100% maximum), the stiffer the screw jack. Like other garage items, you can also click directly on the values themselves, and type the desired amount onto the screen. Remember, each screw jack may be set to individual values, independent of one another.

Screw Jack Rundown

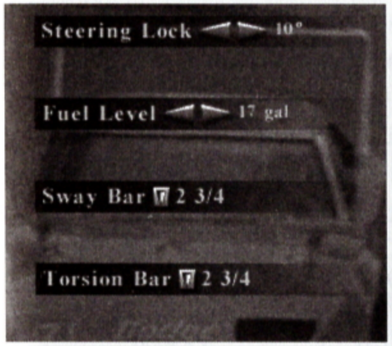
Using softer screw jack settings, weight transfer is reduced. The car will become less responsive as the chassis takes more time to reset itself after each corner. Softer screw jacks do provide less stress to tires and more forgiveness in steering input.

Using stiffer screw jacks, you'll gain more top speed. The tradeoff is that the car will be very responsive and harder on its tires. Screw jacks that are too stiff may lead you to over-correct.

Each screw jack may be individually adjusted, independent of one another.

Sway And Torsion Bars

Your stock car is equipped with a sway bar between the front wheels, and a torsion bar between the rear wheels. These bars control the amount of 'body roll' the car experiences while turning. Thicker sway/torsion bars help minimize body roll, but using bars that are too thick tend to create handling problems.



Steering Lock 10°

Fuel Level 17 gal

Sway Bar 2 3/4

Torsion Bar 2 3/4

Front sway bars control the roll of the car through the corner, but more so on entry. The smaller the bar, the more roll the car has. The bigger the bar, the less roll and the tighter the car will be entering the corner.

The rear torsion bar acts just the opposite. It controls the roll of the car off the corner. The bigger the rear bar, the less roll you will have and you loosen the car up from the middle of the corner, off. Basically, the bigger the rear bar, the looser the car will be off the corner.

In general, you'll want to set the sway/torsion bars as stiff as you can control them. On most larger tracks, you'll probably want the front sway bar slightly stiffer than the rear torsion bar. Since there are only a handful of sizes available, treat these bars like a measure of fine tuning. Remember to keep an eye on the tire temperatures as you try out different bar sizes.

Sway and torsion bars provide some of the same benefits of screw

jacks in the car's handling, but their overall effect is more subtle. You do want the bars as stiff as possible, but using a sway or torsion bar that's too thick can add too much responsiveness to the chassis, making it feel 'twitchy' to drive.

Sway Bar Rundown

Stiffer bars minimize body roll, helping the car get reset quicker as it turns at high speed.

Softer bars prevent less body roll, making the car easier to drive for beginners.

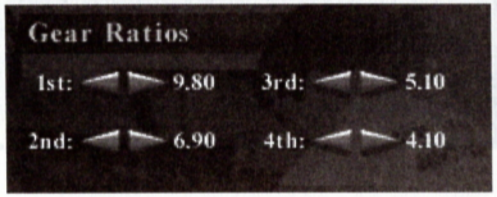
Set the sway bars up as stiff as you can control them. Set each bar up individually, with the front bar affecting your entry into corners, and the rear bar having a greater affect on your exits.

Gearing Up For Racing

Your stock car's engine generates approximately 750 horsepower. By choosing different combinations of cogs in your stock car's transmission, you can determine how the engine will manage that horsepower.

Shorter gear ratios provide greater acceleration, but less overall top speed. Taller gears give you the opposite- great top speed but reduced acceleration. To get a handle on how to pick the right gear, let's look at two tracks- Alabama, a superspeedway and Bristol, a bullring.

At Alabama, you can just about toss acceleration out the window. What you'll want is top speed, as much of it as you can get. In that case, a 3.20 fourth gear will get you more top speed than a 3.45 setting. That's because the 3.20 gear is taller (larger in diameter) than the 3.45 is. Bristol, on the other hand, requires a different approach. Since you're only on each straightaway for four or five seconds, a fourth gear that is too tall would cost you acceleration and waste horsepower. In this case, a 4.10 gear would be too tall; something more in the 4.75-5.00 range would probably be more appropriate.



Gear Ratios

1st: 9.80 3rd: 5.10

2nd: 6.90 4th: 4.10

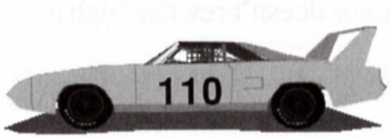
Begin your setup process by choosing fourth gear first. Run some laps, paying close attention to the tachometer. Using the longest straightaway at whatever track you're setting up for, try to pick a fourth gear that will get the tach needle to just barely hit 7,500 rpms as you reach the straight's end. If the motor doesn't rev that high at

all, you may not be using all of the power available to you. If the tach needle climbs above 8,000, the motor may undergo too much abuse and eventually blow. On oval tracks, fourth gear is the most critical; get fourth gear set and then space the other gears accordingly.

Gear Rundown

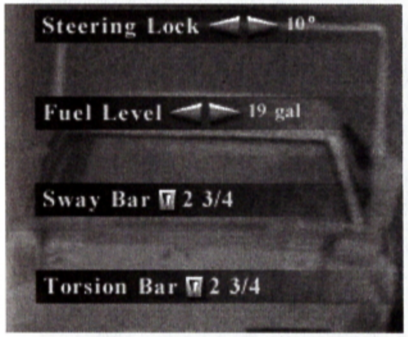
Use shorter gear ratios (higher values) to create more acceleration. Shorter, tighter ratios help the engine reach peak horsepower sooner, possibly trading off some top speed.

Taller gear ratios (indicated by lower values) will provide more top speed but less acceleration. It may take the car a lap or two to get 'wound up to speed' with taller, longer gears. Ideal for superspeedways like Alabama.



Setting Wheel Lock

Wheel lock refers to the maximum angle that your front wheels steer left-to-right, or in other words, how sharp the front wheels turn. Since the banked, expansive corners of superspeedways like Alabama require very little steering input from a driver, a smaller wheel lock value would be desirable. At Riverside though, a small wheel lock setting might not give you enough steering range to find your way around its coziest hairpin turn.



Steering Lock ◄ ► 10°

Fuel Level ◄ ► 19 gal

Sway Bar 2 3/4

Torsion Bar 2 3/4

To a large degree, the amount of steering lock you choose at any given track should be determined by the control device you're using. Wheel users may prefer smaller lock values, as compared to joystick or keyboard drivers. Individual steering devices have different ranges of control to them, so you'll have to choose wheel lock accordingly.

If you set the wheel lock to a value of 18° for example, you would not need to turn the wheel (or other control device) as sharply as you would if the lock was set to 5°. The 18° lock may require the slightest rotation of the steering wheel to cause the car to turn dramatically. The 5° lock would require that same driver to rotate the steering wheel a considerable amount before the car will steer as sharply. Use the smallest lock value that you're comfortable with for the best overall control. If you choose a lock value that is too high, the car will be very sensitive to your steering movements. Lower lock values

will give you a finer range of control.

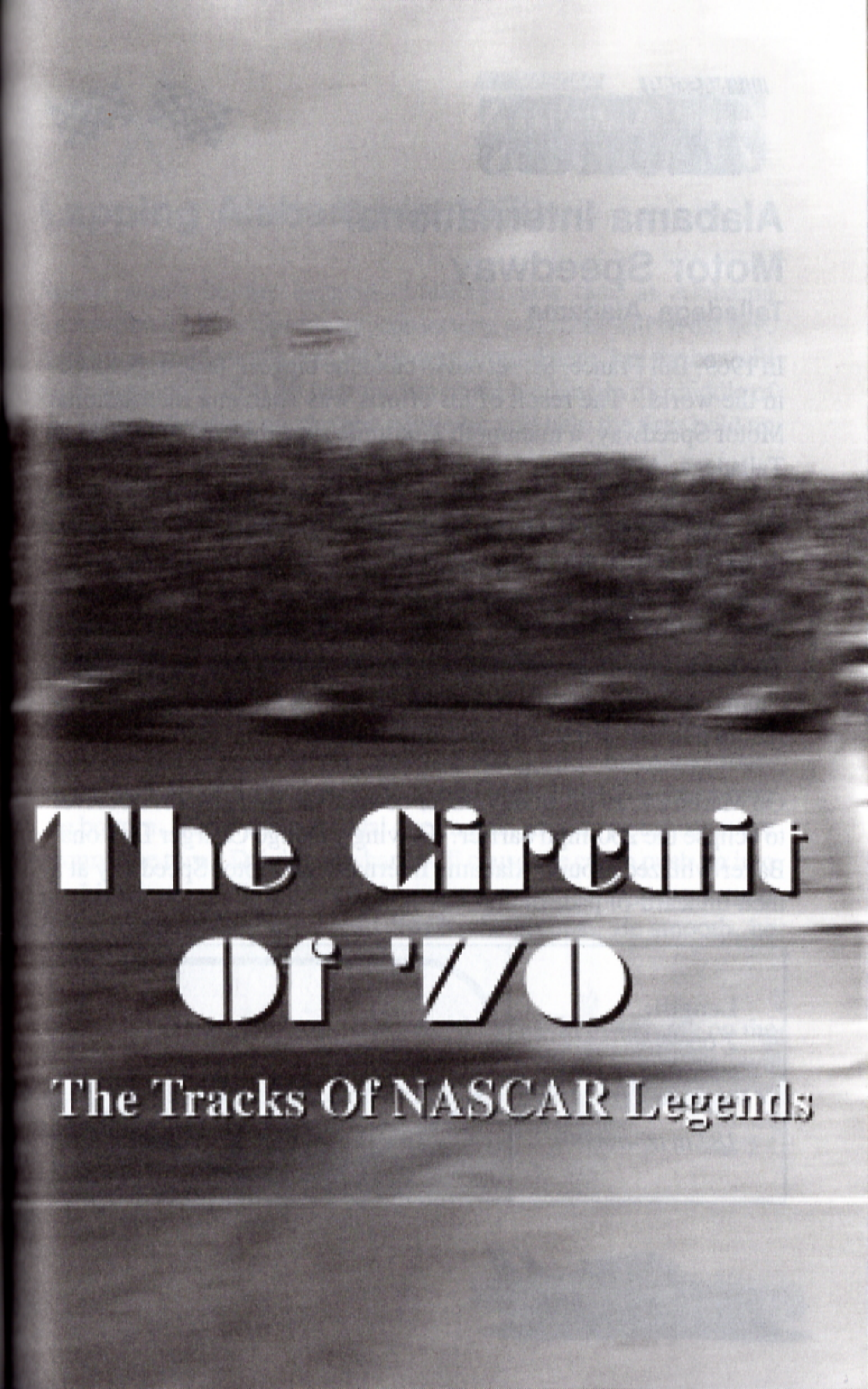
You should also understand that wheel lock is not necessarily going to change the behavior of your car's chassis. A loose car with a low wheel lock setting will still be loose after the lock is raised, and so on. Don't waste time trying to compensate for obvious handling errors in your chassis setup by adjusting wheel lock. Remember, think about the corners of the particular track you're racing on- not just the radius of each turn, but also the banking. Steeper banks will help reduce the amount of wheel lock you'll need.

To change the wheel lock, use the Car Setup Menu. Choose a higher value to make the steering sharper, and more responsive. Select a lower value to slow down the steering and afford you more control.

Wheel Lock Rundown

Use more wheel lock (higher angles) to increase the turning radius of the stock car, adding responsiveness to cornering. Keep in mind that too much wheel lock will make the steering very sensitive, possibly causing you to over-correct.

Less wheel lock (lower values) is perfect for larger tracks that have broad, sweeping corners. Slight movements of the steering wheel or joystick will not affect the car as greatly, allowing you to make high speed corrections easier.



The Circuit Of '70

The Tracks Of NASCAR Legends

Alabama International Motor Speedway

Talladega, Alabama

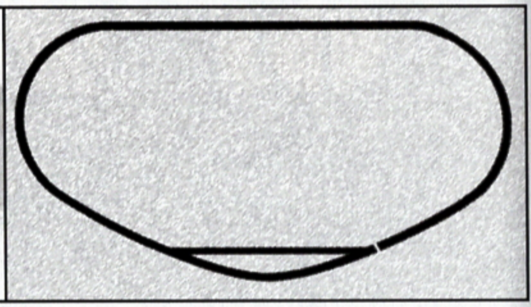
In 1969, Bill France, Sr. set out to build the biggest, fastest speedway in the world. The result of his efforts was Alabama International Motor Speedway, a mammoth 2.66-mile superspeedway located in Talladega, Alabama.

The first NASCAR Grand National race held at the track, on September 14, 1969, was marred by the infamous driver's boycott, but the 1970 event went off without a hitch.

The track, later renamed Talladega Superspeedway (its current name) claims ownership to such NASCAR "bests" as the all-time qualifying record and the fastest 500-mile stock car race.

On March 24, 1970, Buddy Baker became the first NASCAR driver to eclipse the 200-mph barrier. Driving a Dodge Charger Daytona, Baker whizzed around Alabama International Motor Speedway at a then-unheard-of pace of 200.447 mph.

Length:
2.66 Miles
Banking:
33°
18° in tri-oval



Lapping Alabama In 1970

Speed won't be the biggest challenge you face at Alabama International Motor Speedway, conserving your tires will be the key. Sure, you could run flat out all the way around here, but the car will more than likely drift up near the top of the banking in the middle of the turns. Bleeding the throttle a little bit will help the tires hold up longer.

At the start/finish line, keep the car high up near the outer wall. As you approach turn one, make a high entry into the corner and then drive the car down near the bottom. Ease back on the throttle just a tad, not too much! Pump the gas pedal as you round the corner, then stand on it full when you see the back straightaway ahead.

When you get the car out of turn two, drift back up near the outer wall and keep the car there until you reach turns three and four. When you get to three, enter the corner high and drive down near the bottom. Pump the gas pedal once again, driving a consistent arc around the turn. Driving too hard will cause the car to push up into the high lane, while getting off the gas too much will bring the car down to the apron, which can also be dangerous. Be smooth, be consistent.

When you leave turn four, set up for the tri-oval by staying on the high side of the track. As you steer through the tri-oval, dip down and try to clip the bottom of the track. Let the car drift back out to the wall as you pass the flagstand.

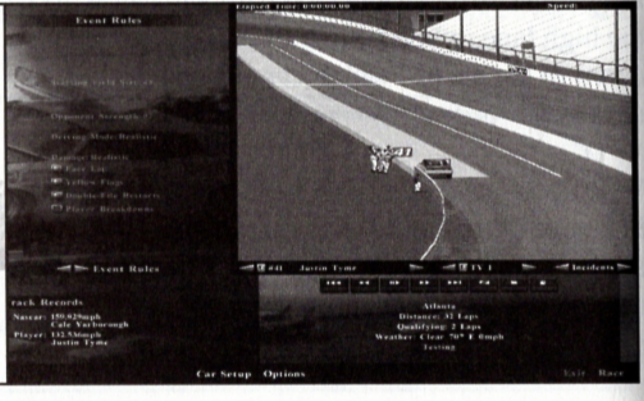
Atlanta International Raceway

Hampton, Georgia

Atlanta International Raceway opened in 1960. Originally slated to open in 1959, inclement weather and unforseen project delays pushed back the track's opening date. Though construction of the track surface and grandstands was finally complete the week of the first race, the garage area was still a work-in-progress. Tents were erected to shelter the cars and serve as infield offices for the first race, won by Fireball Roberts on July 31, 1960.

The track itself is located in Hampton, Georgia, about twenty minutes south of Atlanta. Under the configuration still used in 1970, the track features wide, sweeping corners that are nearly twice as long as the straights. Atlanta International Raceway has since been renamed, and the track was reshaped into a quad-oval in the late 1990's.

Length:
1.522 Miles
Banking:
24°



Track Records
Nascar: 159.929mph
Cale Yarborough
Player: 132.536mph
Justin Tyme

Atlanta
Distance: 32 Laps
Qualifying: 2 Laps
Weather: Clear 70° E 0mph
Testing

Lapping Atlanta In 1970

Atlanta Motor Speedway has very broad, fast corners. You can get around here without braking at all, but a better approach would be to stab the brakes in each turn and work the throttle. This should help improve tire wear.

As you cross the start/finish line, stay high and prepare for turn one. When you reach the first turn, lift off the throttle and brake slightly. Ease back onto the gas and drive a steady line around the turn, running about 75% throttle. Too much gas too soon will cause the car to swerve downward, destroying your consistency. Be gentle with the accelerator and stay in control. As the car straightens up, step on the gas full and drive straight off of turn two by the outside wall.

Down the back straight, stay along the wall. Just before you reach turn three, step on the brakes and dip the nose of the car low. Try to enter the turn right on the bottom of the track. As you enter the turn, roll the gas back on 50-75%, letting the car drift up slightly. When the car hits turn four, bring the gas back on full and exit out near the wall. Keep the car wide as you drive back to the flagstand.

Try to develop a chassis setup that keeps the car up on the banking around the corners. If you can build a car that hugs the track in the corners without slipping and sliding through them, you should expect your name to be listed right alongside Petty, Yarborough, Isaac and Baker as one of the favorites here!

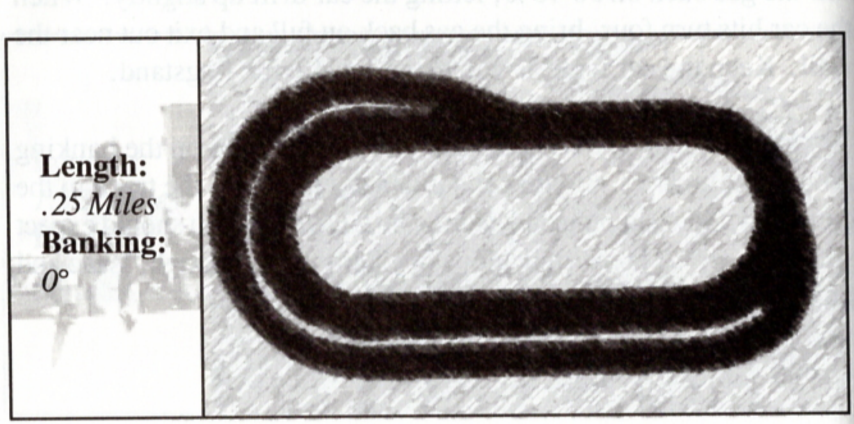
Bowman Gray Stadium

Winston-Salem, North Carolina

Remember your high school track, the one you ran countless laps around on foot, while your overweight P.E. coach munched on hotdogs and candybars? Now imagine driving a stock car around that track!

Bowman Gray Stadium is an actual municipal football field used by Winston-Salem State University. The track that surrounds the gridiron has been hosting auto races since 1947. It features a unique 17,000-seat concrete, horseshoe-shaped grandstand. Between 1958 and 1971, 28 NASCAR Grand National events were held at Bowman Gray Stadium.

Bobby Allison won the final NASCAR Grand National race held at Bowman Gray Stadium, but the track continues to host several divisions of NASCAR competition year after year.



Length:
.25 Miles
Banking:
0°

Lapping Bowman Gray In 1970

"The bank is closed today," this track is completely flat! A steady foot on the gas, not the brakes, is what it takes to win here. Be smooth, be consistent, and most of all- be patient. It's very easy to get into the door of another car here if you get too eager.

Crossing the start/finish line, keep the car near the outside. You can stay in first gear all the way around the track here, but second gear helps the car feel a little bit less squirrely. As you get into turn one, brake and lift off the accelerator. The turns are tight, so don't get back onto the throttle too soon- if you do, the back end of the car will arrive on the straightaway before you do! Gently apply the gas, and only open the car up when you're finished steering around the corner.

On the back straightaway, things happen fast during a race. Constant jockeying for positions is typical of the racing here. Stay focused, get back onto the brakes when you reach turn three, and wait until you steer around the turn before reapplying the throttle. Don't punch the gas, ease it on instead.

Stay high as you drive back to the flagstand, and you've completed a lap at Bowman Gray. It makes North Wilkesboro seem like a steep superspeedway!

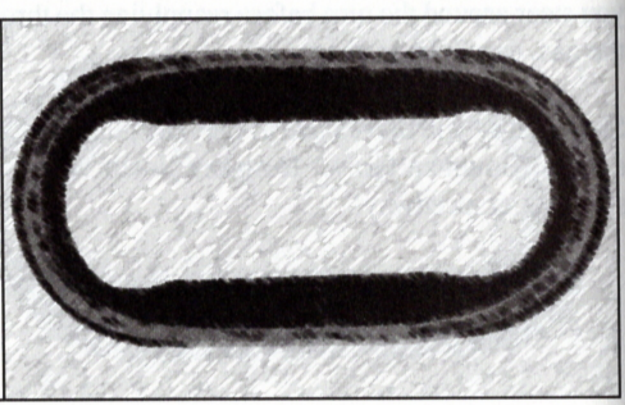
Bristol International Speedway

Bristol, Tennessee

The steepest track on the NASCAR circuit, Bristol International Speedway was built in 1961. The first NASCAR race held there was won by Jack Smith. The track underwent an extensive facelift in 1969.

The track originally had a football field in its infield to help attract NFL preseason games to the area. The Allison brothers swept the races held at Bristol in 1970. Donnie captured the Southeastern 500, beating his brother Bobby by three laps. Three months later, Bobby returned the favor by winning the Volunteer 500. A blistering summer heat wave sent drivers scrambling for relief, and Bobby chose Dave Marcis to relieve him. Marcis stayed steady, putting the car in victory lane ahead of Donnie Allison, who had subbed for LeeRoy Yarbrough.

Length:
.533 Miles
Banking:
36°



Lapping Bristol In 1970

The key to running fast at Bristol is the banking. You've got to keep your car on it. Drive too hard off the corners, and the car will skate down to the bottom of the track and wiggle out of control.

At the start/finish line, stay high and drive hard into turn one. Just prior to reaching the corner itself, lift off the accelerator and tap the brakes slightly. Try to do all of your braking just before the car starts to turn. Get off the brakes and apply half throttle around the turn, keeping the car high. The car will naturally drift downward; as you exit the turn, the car should ideally be about a car-width away from the bottom of the track as you pass the apex of the corner. Gently roll the gas back on as you exit the corner to maintain control.

If traffic permits, keep the car high on the back straightaway; you can't afford to have the car pop down on the apron at the turn three entrance. Enter turn three at the top of the track, again going through the drill of lifting and slightly braking before you start to turn. Step back on the gas about halfway as the car drifts downward, and keep the throttle there until you pass the middle of the turn. Ease back onto the accelerator and drive up to the outside of the track as you exit turn four. You should be back up against the wall by the time you reach the flagstand.

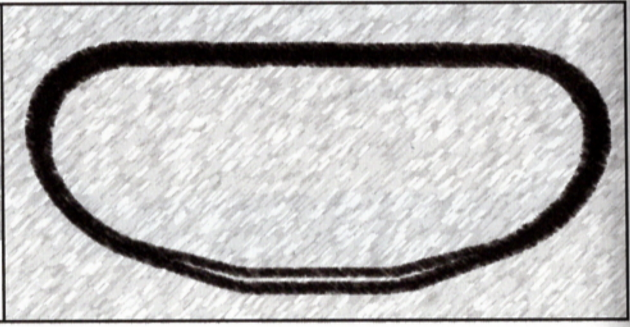
Charlotte Motor Speedway

Concord, North Carolina

Created in 1960 by NASCAR star Curtis Turner and businessman Bruton Smith, Charlotte Motor Speedway staged its first World 600 on June 19, 1960. The race lead changed hands several times as one-by-one, many of the well known drivers suffered mechanical failures. Eventually, Jack Smith's car wound up in front where he stayed for the next 198 laps. But then, the unthinkable happened. Smith's gas tank was ruptured by a piece of asphalt, and the car quickly began losing fuel. The crew tried to stuff the hole with rags, but their efforts went in vain. Car owner Bud Moore cried out, "We need a cake of Octagon soap!" but none could be found. Smith was left standing in the pits, sobbing uncontrollably. In the end, unheralded Joe Lee Johnson was the surprise winner, completing the entire race on one set of left-side tires!

Later that year, Turner and Smith lost control of the speedway as excessive construction costs forced them into bankruptcy. Promoter Richard Howard stepped forward to steer the speedway back toward solvency. Bruton Smith regained control of the track in 1975.

Length:
1.5 Miles
Banking:
24°



Lapping Charlotte In 1970

Charlotte's a fast track that has plenty of room for passing. The key here is to get all of your braking out of the way before the car starts to actually turn.

We'll start this lap from the exit of turn four, in order to cover the double dogleg on the front straightaway. Leaving turn four, keep the car in the middle of the track. As you approach the first dogleg, stay on the gas full and steer the car down across the bottom of the kink. Clip the bottom, then let the car drift back out wide. Just as you cross under the flagstand, begin steering hard left and try to clip the bottom of the second dogleg, with the gas still on full.

Let your car drift back out toward the middle of the track to enter turn one. Just before you actually enter the corner, lift off the gas, tap the brakes and aim the car for the bottom of the track, just above the apron. Once the car is in this "groove" get back on the gas; you're actually on the accelerator throughout the turn itself. Keep the car as low as you can- the outer wall as you exit turn two can come up awfully fast.

On the back straightaway, stay high and on the throttle. Just before you reach turn three, lift and brake once again, aiming for the bottom of the track. Just as the car reaches the bottom, mash the gas and follow the low groove all the way around. Repeat the same sweeping arc through the doglegs, as described above, clipping the bottom of each kink as you head back toward turn one.

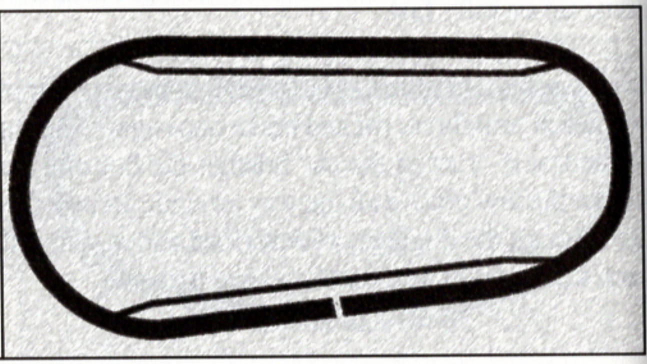
Darlington Raceway

Darlington, South Carolina

Carved out of an old cotton field in 1950, Darlington Raceway is NASCAR's oldest superspeedway. The oval got its curious, egg-shape because the original owner of the land declared his favorite fishing hole "off limits" to track construction. Harold Brasington, the track owner, had to steer the pavement away from the minnow pond just outside of turns one and two.

Darlington Raceway originally measured out at 1.25 miles, but was upgraded and lengthened in 1953. The track was reversed to accomodate new grandstands in the late 1990's. Today, Darlington Raceway is home to the Joe Weatherly Museum, a spectacular facility that displays several cars and historic momentos from past NASCAR seasons.

Length:
1.366 Miles
Banking:
1 & 2- 23°
3 & 4- 25°



Lapping Darlington In 1970

Every fast lap at Darlington has two things in common: first, the car stays on the banking throughout the lap, and second, the driver finds the groove into turn three and steps on the gas all the way around.

Crossing the start/finish line, stay high and prepare to brake hard. Just before entering turn one, mash the brakes and get the car slowed way down. Turns one and two are much different than three and four are. When the car is slowed enough to hug the middle of the banking, begin stepping back onto the accelerator. If you slowed down enough, you'll be able to floor it- if you didn't, you'll need to roll the gas on and wait until you exit turn two before adding full throttle.

The car should exit turn two near the outer wall. Stay wide on the back straight to prepare for the banking of turn three. Turns three and four can be taken much faster than one and two...if you hit it just right. As you enter turn three, lift off the gas, step on the brakes and aim for the bottom of the banking. Use enough braking to allow the car to stay on the bottom/middle of the bank, but don't brake so hard that the car drifts down. This whole braking process is quick- just a stab on the pedal, followed by an application of full throttle. The car will point toward the outer wall and feel like it's going to shoot up into the concrete. Cut the wheel hard left and stay on the gas. As your car begins to turn around the corner, gently reduce the amount of steering so that the car stays up on the banking. Watch the exit at turn four, cars tend to "bounce" toward the outer wall if the line isn't driven perfectly. When you leave turn four, you'll be against the outer wall heading for the flagstand.

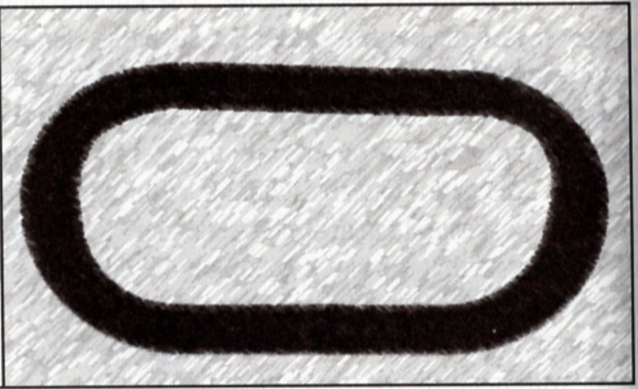
Greenville-Pickens Speedway

Greenville, South Carolina

Originally sporting a half-mile dirt surface, Greenville-Pickens Speedway was paved in 1970. A year later, the NASCAR Grand National division held its 29th and final event at the track, with Richard Petty claiming victory. In addition to Petty's six career victories at Greenville-Pickens, other winners at the track include David Pearson (four wins), Bobby Isaac (four wins), Buck Baker (three-time winner), Junior Johnson (two wins) and Ned Jarrett (two wins).

Tom and Pete Blackwell purchased the track in 1955 and still operate it today. Greenville-Pickens Speedway hosts a variety of NASCAR-sanctioned events throughout the year.

Length:
.5 Miles
Banking:
5°



Lapping Greenville In 1970

Greenville is a tight, second-gear track that requires a delicate touch on the accelerator. The fastest driver here will likely be the one who displays the most consistent throttle control, lap after lap. Don't rule out the possibility of doing some downshifting in the turns here for better control.

Leaving the start/finish line, stay on the gas until you reach turn one. Just before you reach the turn, brake hard and then add a slight amount of throttle back in. Too much throttle will spin the car out, so just give it enough gas to keep your rpms up. Because of the tight, claustrophobic corners, you'll need to make a late apex (in other words, wait until you've driven past the middle of the turn before you accelerate). As your tires heat up, you may find that you can get back on the gas a tad earlier, but for now, be very, very patient as you leave each turn. Roll the gas on slowly until the car is almost pointing straight.

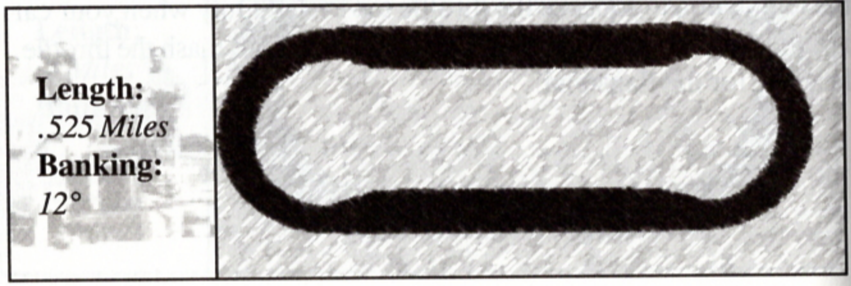
Down the back straight, stay in the middle and prepare to repeat the same process you did in turns one and two. Brake early, apex late. Ride the gas pedal all the way around turns three and four, avoiding the temptation to squeeze the throttle too early. Only when your car is almost facing the straightaway will you be able to mash the throttle, heading for the flagstand.

Martinsville Speedway

Martinsville, Virginia

Opening as a half-mile dirt track in 1947, Martinsville Speedway hosted its first NASCAR Grand National race in 1949. The story of the race, won by Red Byron, captured but a small three-inch column in the Martinsville Bulletin. It was sandwiched next to a two-column story on the upcoming baseball series between the Boston Red Sox and the New York Yankees.

The track was paved in mid-1955 (between the spring and fall races) and is the only remaining "charter track" on the NASCAR circuit. Sixty percent of the racing surface at Martinsville is comprised of the two 800-feet long straightaways.



Length:
.525 Miles
Banking:
12°

Lapping Martinsville In 1970

Depending upon how your gear ratios are set up, you'll be doing one of three things on each lap: staying in third all the way around, staying in fourth, or shifting up to fourth on the straights and dropping to third gear in the corners. This lap will go along with keeping the car in fourth gear.

At the start/finish line, stay out near the wall approaching turn one. Brake hard as you reach the corner, and enter the turn in the middle of the track. Steer down to the bottom of the pavement; as you do, roll the gas back on slowly until you reach full throttle at the exit. Out of turn two, let the car drift back up near the outer wall.

On the back straight, stay near the outside and prepare to enter turn three in the middle of the track. Before you reach the turn, brake hard and head for the middle. Bleed off enough speed to let the car float down to the bottom of the pavement, and then ease back onto the accelerator. Gradually apply the throttle until you reach full power as you leave turn four, heading back to the flagstand.

You'll discover pretty quickly that you can't afford to let your car be too loose at Martinsville. A good neutral chassis coupled with a patient gas foot will keep you in the top ten!

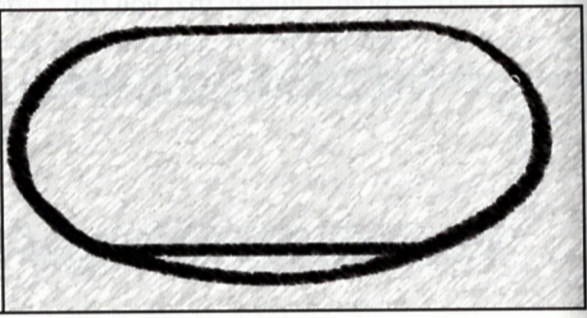
Michigan Speedway

Brooklyn, Michigan

Michigan "International" Speedway held its first NASCAR race on June 15, 1969, a 500-mile event won by Cale Yarborough in a thrilling duel with LeeRoy Yarbrough. The two drivers battled door-to-door for most of the final 150 laps. On the last lap, they touched twice entering turn one, and Yarbrough brushed the wall. They drafted down the back straight, and coming out of the final turn Yarbrough spun and crashed just 300 yards from the finish line.

The track was built in the scenic Irish Hills region by land developer Larry LoPatin as part of the American Raceways empire. The oval was designed by Charles Moneypenny, who also designed the Daytona International Speedway, and the road courses were laid out by Formula One legend Stirling Moss. Roger Penske purchased the track out of bankruptcy in 1973, and dropped "International" from the name in 1997. The track is now owned by International Speedway Corporation as part of the 1999 merger with Penske Motorsports, Inc.

Length:
2 Miles
Banking:
18°
12° front straight



Lapping Michigan In 1970

The Michigan pavement is wide and fast, allowing cars plenty of room in three-abreast situations. The banked front straightaway helps drivers get a good run into turn one, but the back straight is flatter and will force you to brake going into three.

Crossing the start/finish line, the car is turning left in the middle of the track, thanks to the "D" shaped front stretch. Just before you reach turn one, lift off of the accelerator and let the car coast for a couple of beats. On fresh tires, you shouldn't need to brake at all- maybe just a slight tap of the pedal if you prefer. Try to keep the car along the bottom of the track; when you feel it "stick" to the low groove, get back on the gas and drive flat out all the way around the corner, and onto the back straightaway. As you exit turn two, let the car drift out to the wall.

Stay wide on the back straight if you can- if you find yourself pinned to the low lane due to traffic, you're going to have to back off sooner going into turn three. If not, several drivers will probably come looking for you in the garage after the race- and it won't be to compliment your shiny paintjob!

Turn three requires a fair amount of braking to keep the car low. Whereas turn one gave you the luxury of a banked arc going in, turn three is preceded by a relatively flat straightaway. Get on the brakes and aim for the bottom. Lift off the brakes and coast for a beat or two, until you feel the car stay put. When you do, step back on the gas and drive hard off of turn four, letting the car drift back toward the middle of the track heading for the flagstand.

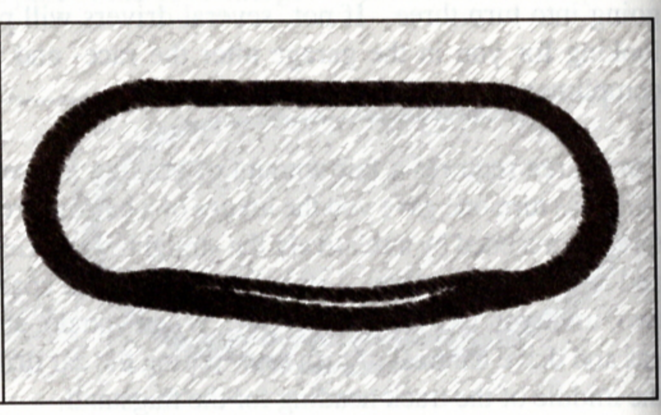
North Carolina Speedway

Rockingham, North Carolina

North Carolina Speedway, better known as "The Rock," was built in 1965. Harold Brasington, Darlington builder, served as a consultant in the track layout. The original construction force consisted of only five men!

The first NASCAR Grand National race at Rockingham was held on Halloween afternoon, 1965. Curtis Turner, freshly reinstated after his "lifetime suspension" was lifted by Bill France, was the victor that day. It would later prove to be the last NASCAR victory of Turner's career.

Length:
1.017 Miles
Banking:
1 & 2- 22°
3 & 4- 25°



Lapping North Carolina In 1970

Staying along the bottom of the corners at Rockingham will ultimately give you faster lap times and better tire wear. The corners here are very distinct and require two different approaches.

At the start/finish line, you're at the bottom of the race track because of the "D" shaped front stretch. Drive the car back up to the middle of the track and try to stay there through the turn one entry. Brake hard just before you reach the first corner, dropping down to around 5,000 rpms in fourth gear. Starting in the middle of the track, steer the car down across the bottom. Stay just above the apron on the banking; when you reach the bottom of the track, step on the gas full and drive hard out to the wall, exiting turn two.

On the back straight, keep the car wide. At the entrance to turn three, lift off the gas and tap the brakes. You won't need quite as much braking here as you did in turn one, thanks to a wider, steeper corner. Enter the turn in the lower groove of the track and try to steer the car along the bottom. Just prior to reaching the halfway point, stomp on the gas and drive out of turn four in the middle of the track.

As your car heads back to the flagstand, drive a straight line across the bottom of the track.

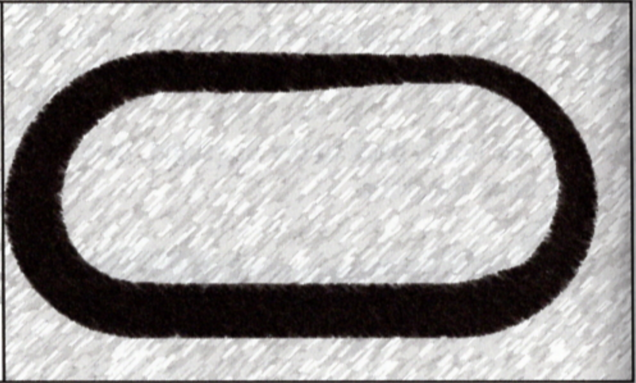
North Wilkesboro Speedway

North Wilkesboro, North Carolina

North Wilkesboro Speedway, famous for its uphill-downhill layout, first opened its doors in May, 1947. Built in a hilly region of North Carolina, North Wilkesboro Speedway has a front straightaway that lunges downhill; the back straightaway climbs back uphill. NASCAR added the dirt track to its schedule in 1949, as the season finale. Bob Flock won the event.

The track was paved in 1957 and played host to major NASCAR events through the 1996 season. With the addition of events at Texas Motor Speedway and New Hampshire International Speedway, North Wilkesboro was dropped from competition prior to the 1997 season. Though the track still stands, its future is in doubt for the time being.

Length:
.625 Miles
Banking:
14°



Lapping North Wilkesboro In 1970

North Wilkesboro is a tight track, but overall braking is much less than you might think. There is enough room in the corners for two-wide racing, provided drivers on the inside keep their cars along the bottom.

Crossing the start/finish line, the car is heading downhill. Stay in the middle of the track, and lift off the accelerator just before you reach turn one. Give the brakes a very light, quick tap and steer the car into the corner along the bottom. Put your foot back onto the gas pedal enough to keep the engine revving. Just beyond the halfway point of the corner, put your gas foot to the floor and drive the car off of turn two right along the outer wall.

As you're driving uphill along the back straight, look for the pit wall on your left- this will be your brake marker. As your car reaches the pit wall, lift off the accelerator and tap the brakes. Steer the car right along the wall at the bottom of the track, keeping the rpms up with your gas foot. When you see the front straightaway begin to appear in your view ahead, step back onto the gas and drive a straight line off the turn, near the outside wall. You'll reach the flagstand at about the same time you reach the wall, positioning yourself for another run into turn one.

Ontario Motor Speedway

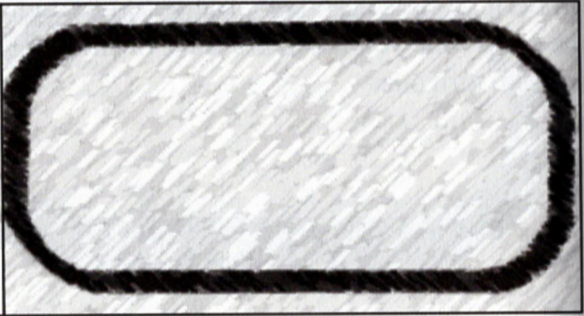
Ontario, California

Although Ontario Motor Speedway did not officially appear on the NASCAR Grand National schedule until 1971, we thought it would be a nice "period addition" to NASCAR Legends. Built as a near-carbon copy of Indianapolis Motor Speedway, it's no surprise that Indy driver A.J. Foyt, driving for the Wood Brothers, won the first two NASCAR events held at Ontario Motor Speedway.

The final event at Ontario was won in 1980 by Benny Parsons. Dale Earnhardt finished fifth in the event, winning his first career NASCAR Winston Cup Championship by edging Cale Yarborough, who finished third in the race.

Though many considered it the premier motorsports facility in America at the time, the track struggled financially, and closed following the 1980 race. The facility was sold to Chevron Oil Co. in 1981, and leveled in favor of re-development. The new California Speedway, which opened in 1997, is only a few miles away from where Ontario Motor Speedway was once situated.

Length:
2.5 Miles
Banking:
9°
5° in chutes



Lapping Ontario

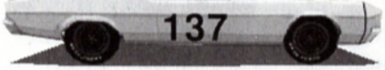
Ontario Speedway is a broad, two-and-a-half mile layout that tempts you with speed, then tests your patience with four corners that must be taken with finesse.

From the start/finish line, stay out near the wall until you reach turn one. Brake before the turn, slowing the car enough to be able to dive to the bottom of the track as you go in. Drive your car across the bottom of the pavement, just above the curb and wait until you've cleared the apex of the corner before accelerating.

As you floor it leaving turn one, swing the car out wide in the chute and lift off the accelerator just prior to entering turn two. You shouldn't need to brake much, if any at all as you coast across the bottom of the track through number two. Let the car drift back up near the wall as you leave the corner and head down the back straightaway.

Stay high if traffic permits, in order to get a good clean entry into turn three. Approaching three, brake very early, and slow the car down a bit more than your instincts tell you to. Dive to the bottom of the track as the car slows down. If you hit it just right, the car will glide across the bottom of three without any worries at all. If you gas it too hard through this turn, you'll have to fight the car in order to stay away from the outer wall as it pushes up.

Leaving three, swing wide in the chute and lift off the gas into four. Coast to the bottom and then hammer the accelerator as you pass the apex of the corner. Ease the car back out near the wall and head full speed for the flagstand.



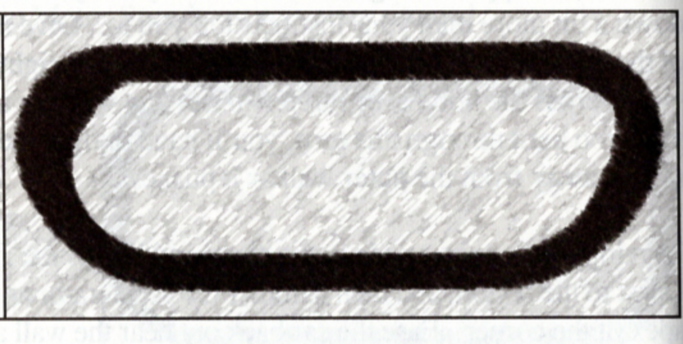
Richmond Fairgrounds Raceway

Richmond, Virginia

Opening in 1946 as a half-mile dirt oval, Richmond Fairgrounds Raceway first hosted a NASCAR race in April of 1953. Lee Petty won, though top drivers Tim and Fonty Flock both boycotted the race, citing a disagreement over the qualifying procedure. Since then, two other generations of Pettys, Richard and Kyle have also won at Richmond, giving it the distinction of being the only NASCAR track where three generations of drivers from one family have been winners.

The track was paved in 1968, and massively redesigned in 1988. The surface is now a three-quarters-of-a-mile, "D" shaped oval, known as Richmond International Raceway.

Length:
.542 Miles
Banking:
6°



Lapping Richmond In 1970

Richmond's layout is very tight. Your car setup may dictate that you stay in third gear all the way around, depending upon how you set your ratios. The corners require a lot of patience in order to make fast laps here.

At the start/finish line, stay high and hit the brakes just prior to entering turn one. Try to get the car down to the bottom of the track and keep it there through the entire corner. This is important if you want a fast exit. After braking, hold your foot on the accelerator just enough to maintain rpms as your car coasts around the turn. The urge to accelerate will be there, but you've got to wait longer than you'd think because the exit is so tight. When your car points toward the caution light near the turn two exit, step on the gas full and drive hard out of two and down the back straightaway.

Stay wide on the back straight and hit the brakes going into three. Steer the car down to the bottom of the track and coast around the corner, using just enough gas to keep the rpms up. Just like in the previous corner, the caution light on the pole near the exit can serve as a marker, indicating your acceleration point. When your car faces the caution light in turn four, step on the accelerator full and drive back out near the wall. As the car reaches the outer wall you'll be near the flagstand.

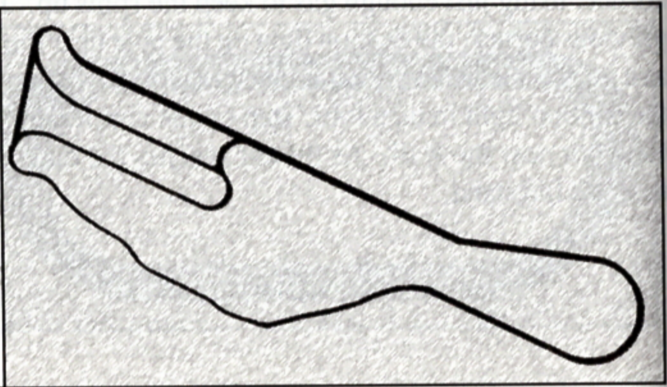
Riverside International Raceway

Riverside, California

Originally opening in 1957, Riverside International Raceway sported a total of four different lengths during its life. Grand Prix driver Dan Gurney had an early stranglehold on the track, winning five out of seven races in the 1960's. Richard Petty finally broke Gurney's lock on the circuit by winning the February race in 1969.

The last race to be held at Riverside took place on June 12, 1988. Rusty Wallace was the winner. After hosting 48 NASCAR races during its three decades of operation, Riverside International Raceway was then sold and razed, in favor of real estate development.

Length:
2.62 Miles
Banking:
12°
nine-turn
road course



Lapping Riverside In 1970

Crossing the start/finish line, you should be going at least 120 mph, in third gear. Run the car up against the right side wall, brake slightly and turn the car left to the apex of turn one. Your speed here should still be in the 115-120 mph range. After clearing turn one move your car toward the left side of the track to prepare for turn two. Turns two through six are referred to as the "Esses." You'll need to brake some for turn two as you run the car down to the inside of the corner. The next three turns should be run in third gear, and you only need to lift off the throttle slightly as you enter each one. Try to keep your steering smooth through the left-right-left turns. Developing a smooth rhythm here will help you avoid spending too much time "on the beach."

As you approach turn six you will need to brake hard and downshift to first gear. Sweep from the outside to the inside here, maybe cutting the sand slightly, as you slow to about 50 mph. Clearing the turn, you'll be on a short straight. As you approach turn eight you will drive over a slight hill. As soon as you clear the hill, brake hard and downshift to first gear for the tight right hand turn. Your speed here will need to be in the mid-50 mph range. When you exit turn eight you'll be steering back to the left slightly. This leads to the longest straight on the track. Near the end of the straight there is a slight kink that turns left. Line your car up on the right side of the track; with just a slight turn of the wheel you should be able to clear this kink at full throttle.

After the kink you will be heading toward a high-banked right hand turn. You'll need to brake heavily and down shift to second around the area where the groove gets very dark. The idea here is to keep the car low in this corner, since the banking rolls off at the top of the curve. If you let the car get too high in the corner here, you'll probably be introduced to the Riverside walls in short order. You should be able to hold about 95 mph in this corner if you hug the low line. The exit of this corner leads you back to the start finish line.

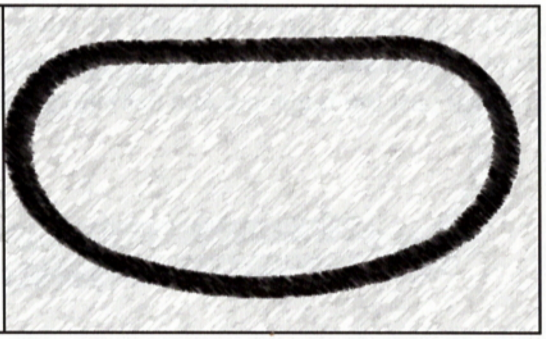
Texas World Speedway

College Station, Texas

Texas World Speedway is located in College Station, Texas. Built by land developer Larry LoPatin (who also built Michigan International Speedway) in 1969, Texas World Speedway was plagued by poor weather and management woes during its early years. In winning the inaugural event there, Bobby Isaac captured his first superspeedway victory. The 1970 Lone Star 400, scheduled to be held at Texas, was cancelled in mid-season. Texas World Speedway (originally named Texas International Speedway when it opened) hosted eight NASCAR events between 1969-1981. Only 18,000 people turned out to see Benny Parsons win the final NASCAR race held there.

The track was closed and sat idle from 1989-1991, when it was purchased by a group of Japanese businessmen. In April of 1994, Raceway Limited Partnership regained ownership of the track (RLP owned Texas World Speedway from 1976 to 1991). Now reopened, Texas World Speedway hosts several racing schools, sports car clubs and motorcycle events throughout the year.

Length:
2 Miles
Banking:
22°
8° front straight



Lapping Texas In 1970

Texas World Speedway is a very fast layout that is also very forgiving. Much of the track can be driven without braking, and passing is not to difficult thanks to the ample width of the pavement.

Crossing the start/finish line, you're in the middle of the track and steering left because of the curved front stretch. As you approach turn one, lift and bring the car down to the bottom of the track, careful not to leave the banking. You probably won't need the brakes here if you lift early enough. Driving deeper into the turn before letting off is another matter, however. As soon as the car settles down at the bottom of turns one and two, floor it and drive around the arc, coming off of turn two near the outer wall.

Stay high on the back straight; like Michigan, Charlotte, and other superspeedways you'll need to lift early going into three if you find yourself pinned low on the back straight.

Entering three, brake slightly and duck the car down to the middle of the track. As the car dips just below the middle groove, step back on the gas full and drive it around the curve. Leaving turn four, the front straight's arc allows you to stay hard on the gas all the way around, past the flagstand and back into turn one without braking.

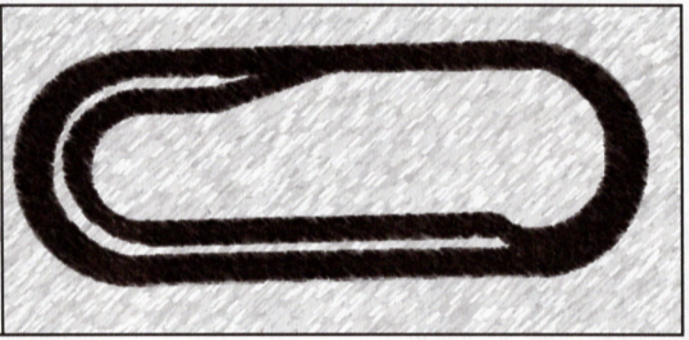
Thompson Speedway

Thompson, Connecticut

Thompson Speedway was built in 1940. The track was originally recorded as being a half-mile, but in 1970 was re-measured as being slightly larger than that. NASCAR's top division first ran at Thompson Speedway in the Fall of 1951, and the last NASCAR Grand National race to be held there was won by Bobby Isaac in 1970.

Thompson Speedway continues to operate a full schedule of weekly events throughout the year, featuring NASCAR Winston Racing Series Pro Stocks, NASCAR Featherlite Modifieds, Pro Trucks and mini stocks and others.

Length:
.542 Miles
Banking:
15°

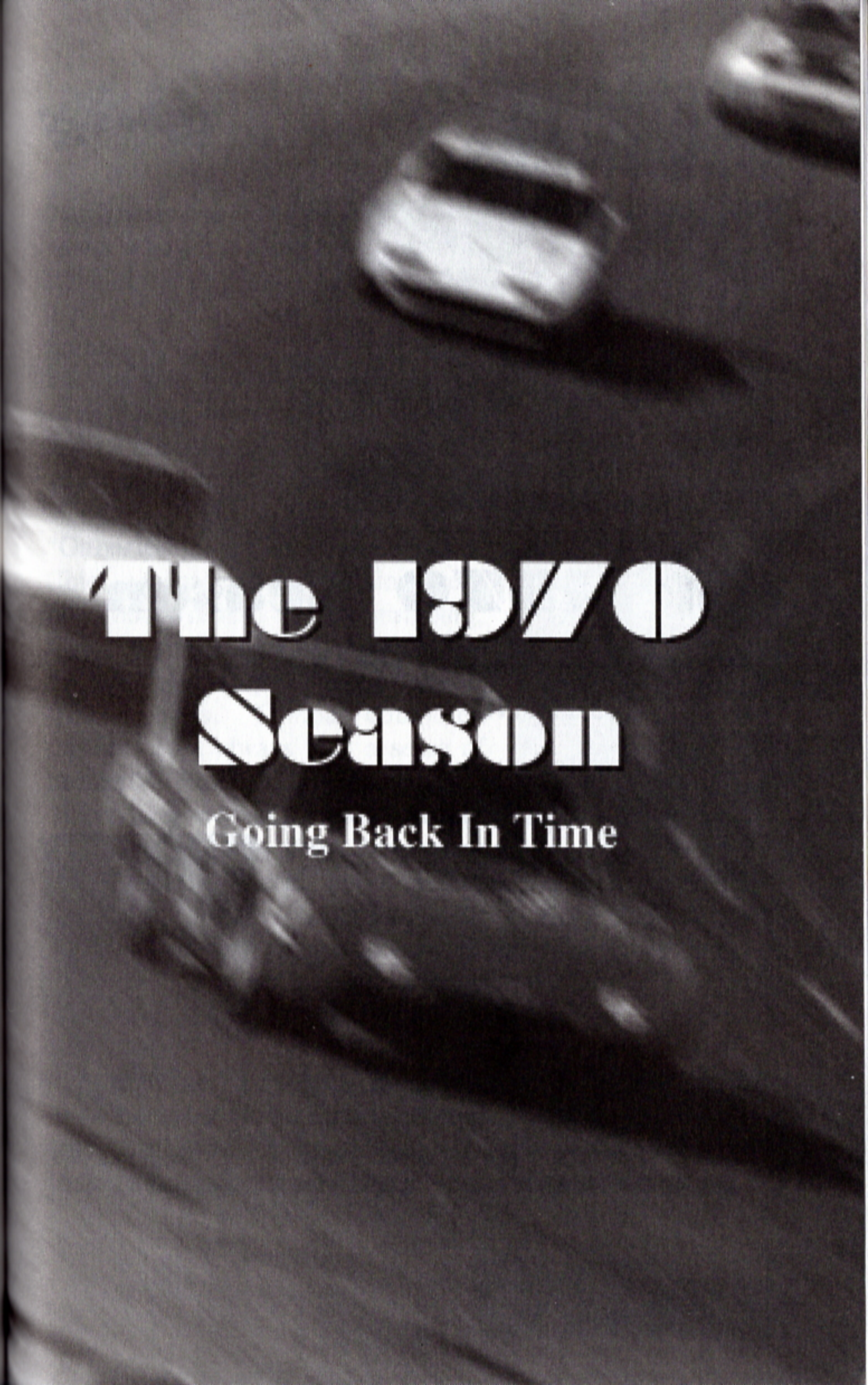


Lapping Thompson In 1970

The Thompson Speedway track feels very tight, despite the banking. You'll need to take your time getting around the corners here, especially when your tires are wearing down. The car can be adjusted so that third gear is all you need to use, if you'd like. This allows you to set fourth gear up as a late race, "conservative" alternative.

At the start/finish line, stay near the wall and on the throttle. When you reach turn one, brake hard and try to enter the corner in the middle of the track. Entering too low will chop off your exit space. Pump the gas pedal to keep the rpms up as you coast around the turn, first in the middle of the track, then drifting down at the apex, then starting back up the track again. Past the apex of the corner, get back on the gas full and steer the car out to the wall.

On the back straight, keep the car high to prevent an entry into turn three that's too low. Brake hard and enter turn three in the middle of the track, and start cutting the wheel left. Pump the gas pedal some more, and as the car clips the bottom of the turn, begin to work your way back to full throttle. Exit the corner wide, near the outer wall and floor it back to the flagstand.



The 1970 Season

Going Back In Time

The 1970 Season

Fast Tracks, Scat Packs And Sideburns

Ask any of the drivers what was so unique about the 1970 season, and you'll be disappointed with the responses. "It's been so many years now, I don't remember where I finished in points (in 1970)," Neil "Soapy" Castles says. "I do remember losing an engine at Michigan that year."

Neil "Soapy" Castles 1970 Photo

In 1970, Castles was an independent driver on the NASCAR Grand National circuit. Castles acquired the nickname "Soapy" from his days competing in the Soapbox Derby. Many also attributed the nickname to the fact that Castles was "the only man in the NASCAR Grand National garage who could change an engine, race the car for 500 miles and still look like he just stepped off of the ballroom floor." These days, it's just Neil, the Soapy handle faded away long ago. During his prime as a NASCAR Grand National competitor, Castles was lured into working on Hollywood movies as a professional driver. He stepped away from the NASCAR scene after the 1979 season and has attained quite a resume of works as a high speed driver for several Tinstletown projects in the years since.

Ezra "Jabe" Thomas Circa 1970

"On our team, every one of us was a Crew Chief, a manager and everything else," Jabe Thomas recalls. The Christiansburg, Virginia driver campaigned his own cars on NASCAR's top circuit for almost fifteen years. Thomas competed seriously, but always kept a sense of humor about him in the process. "Everything we had was used. Things were different back then. I remember Glen Wood was being interviewed, and said they'd run a 19.4 second lap. I said that was nothing, it only took us four minutes and nineteen seconds. They got a charge out of that!" he says with a laugh.

"For the longest time, I was the only truck driver we had, I always drove the flatbed with the race car everywhere we went," Neil Castles says. Castles recalls that during one event at Riverside, seven drivers shared a single pit crew. "Me and Elmo, and Hylton- nobody had

1970 Media Coverage

Prior to the 1970 season, ABC Television signed a deal with NASCAR to broadcast parts of nine races that year. Five of the telecasts would be live, but none of the races would actually be shown in their entirety. In addition, the deal called for more races to be shown in 1971 and 1972, at ABC's option. It was the only television contract NASCAR had at the time.

Without computer technology to quickly produce text, photos and design elements, print media also lagged months behind the actual events. Issues published in May had coverage of races held in January, and so on. Each magazine was assembled by hand- this sometimes resulted in missing pages, missing pictures, and mis-labeled photos.

any help so we all pooled. We had one guy apiece so we all put our guys in the one pit. Whoever was running first would come in for a pit stop first, and then we'd trickle down the line," he laughs. "But it all worked out; there was no way I could take a seven man pit crew all the way to California, and put 'em all up in a motel."

There were some real noteworthy memories of the 1970 season, however. First, there were the cars- burly, fast muscle cars that featured overstated body designs and brutish hemi engines. The more bullish NASCAR fans are quick to point out that 1970 also

marked the last year that the NASCAR Grand National cars competed on dirt, that being the race held in September of that year at State Fairgrounds in Raleigh. And finally, there was the simplicity of the era itself- a time when virtually anyone with a car, money for entry fees, the time and the determination could roll up to the speedway and compete against NASCAR's top competitors.

The reigning NASCAR Champion, David Pearson, straps himself into the Holman-Moody Ford and prepares to defend his title.

The 1970 season began like many others of its time. A handful of drivers, perhaps a dozen or so, replete with factory backing would all be chasing the reigning NASCAR Champion, David Pearson. Along with the "factory boys" there would be the usual

A pair of Union 76 "Race Stoppers" pose on the wing of a Plymouth Superbird. The Race Stoppers appeared in victory lane, as well as at parades, promotional engagements and photo sessions.

contingent of independent drivers, a few able to make every race, but most only possessing enough funding to run a partial schedule. There would be forty-nine races in all, but no driver would be able to compete in more than forty-eight. The Twin 125's at Daytona would both be counted toward the title, and since each driver would only run in one of these two races, forty-eight races would be the limit.

The season opened at Riverside with Parnelli Jones winning the pole, and in the process, causing an early controversy. Jones, a Firestone dealer, had made his qualifying run on limited edition tires that, in NASCAR's eyes, were not readily available to everyone. NASCAR therefore deemed the tires ineligible, sending Jones and nine other drivers to the rear of the starting grid. Several drivers threatened to boycott the race; NASCAR released a statement saying that a 600-tire supply would be necessary in order for all drivers to have access to the Firestones. Firestone responded by saying they had 536 tires on hand, more than twice the number they had available the previous year at Riverside. No matter. By the 43rd lap, Parnelli Jones had worked his way from the rear of the field into the lead and began pulling away when clutch failure sent his car behind the wall, 25 laps shy of victory.

EAST TENN.
TORINO TALLADEGA
17

One Cool Cucumber

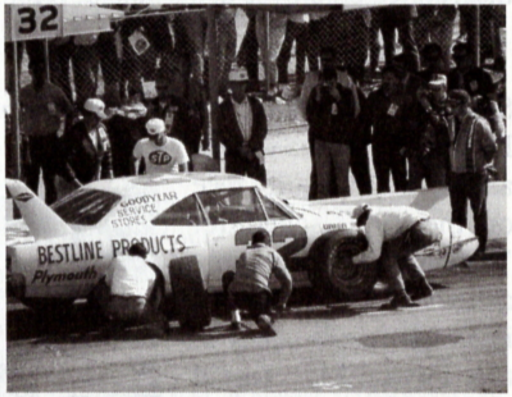
David Pearson will forever be known as the "Silver Fox." His ability to out-think other drivers on the fly is legendary.

"We were at Dover, and that joker passed me in the 3 & 4 turn, and he was on the outside of me," Jabe Thomas says. "I looked over and in his right hand, he had a cigarette. And his left hand was signaling me. I knew he had his knee up against the steering wheel," Thomas remembers.

"And after the race I said, Man you were cool!" Pearson replied, "Man, I was so dead-tired I couldn't stand it, but I didn't want them other cats to know it!"

Pearson ranks second in all-time victories, with 105.

A.J. Foyt then manned the point and went on to earn his third career NASCAR victory, and first in five years. Indy veteran Roger McCluskey finished second, followed by LeeRoy Yarbrough, Donnie Allison, and Richard Petty.



Dick Brooks receives fresh right side tires under the watchful eye of a NASCAR official (standing in front of the car, with hands his behind his back). Five men were allowed over the wall in 1970, and as this photo depicts, few teams had matching pit crew uniforms.

The next event on the schedule wouldn't take place for an entire month- that being the Twin 125's at Daytona. The first of the "Twins" was taken convincingly by Cale Yarborough- first he set a qualifying record with his 194.015 mph lap, and followed that effort up with a race record average speed of 183.295 mph. Bobby Isaac, piloting the K&K Dodge, finished second. Yarborough ran the entire

Jubilant Twin 125 winners Glotzbach (l) and Yarborough (r) show off their hardware.

50-lap race on a single set of tires, while Isaac's crew changed right sides. The difference between Yarborough's and Isaac's pit stops-five seconds, was the eventual difference in the race.

The second Twin 125 race went to "Chargin' Charlie" Glotzbach, who cruised past Buddy Baker with 14 laps remaining. Chrysler cars claimed the first six positions in the race. For Glotzbach, it was a triumphant return to the cockpit after being shot in the stomach by a disgruntled employee at his land development business.

Since both Twin 125's counted toward the points championship, the Daytona 500 would actually be the fourth race on the 1970 schedule. Yarborough was certainly a favorite following his impressive performance in the Twin 125. David Pearson, Bobby Isaac, Richard Petty, LeeRoy Yarbrough and the Allison brothers were also odds-on favorites to win, but none of them did.

The grid awaits the start of the 1970 Daytona 500.

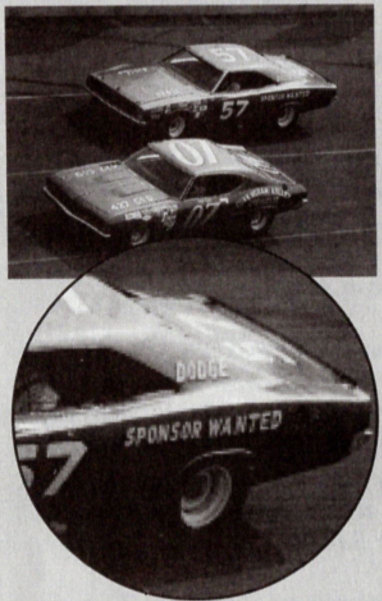
Wendell Scott: Paving New Tracks

Like any other NASCAR driver, Wendell Scott dealt with his share of misfortunes on the racetrack. But Wendell Scott also saw a unique perspective off the track that no other Grand National driver knew of firsthand. Unlike any other NASCAR driver, Wendell Scott was an African American.

Scott began racing in 1947, in his hometown of Danville, Virginia. By 1961, he had scraped together enough cash to purchase a used Grand National car from Buck Baker. On December 1, 1963 Wendell Scott won a NASCAR Grand National race at Jacksonville, Florida. Due to a scoring mix-up, Buck Baker was declared the winner, with Jack Smith in second and Wendell Scott in third. It was later determined that Scott had in fact completed 202 laps- two more than Buck Baker did in the 200-lap event!

In an era when America began addressing civil rights issues, Scott rose above it with a tireless sense of humor and a keen focus on racing. Lacking both factory backing and sponsorship, Scott himself turned the wrenches, towed his racecar and made trips to the store for spare parts. His own sons often served as his pit crew. Fellow drivers, however, did offer assistance. In 1964, when Scott was having a rough time, Ned Jarrett helped him obtain a Holman-Moody Ford for one dollar. In that car, Scott managed to finish the season twelfth in points, despite missing several races.

Racing on a shoestring, Wendell Scott competed in almost 500 NASCAR Grand National events during his career. He managed to finish in the top ten 147 times. Scott retired from driving in the mid-seventies. His career was highlighted on the silver screen in the 1977 movie "Greased Lightning," starring Richard Pryor. Scott served as a technical advisor and drove some of the racing sequences in the film. He died in 1990.



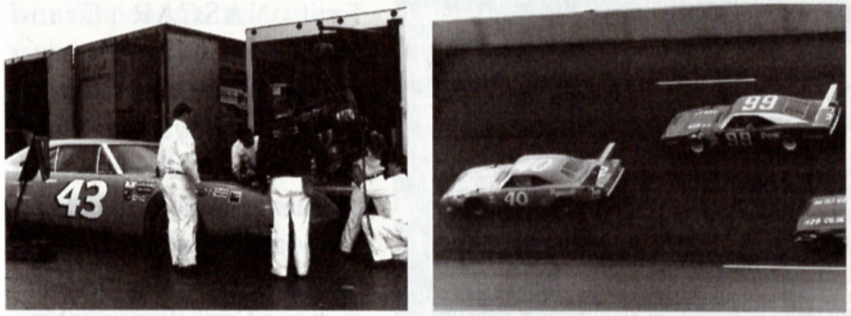
For Sale: Two Quarter-Panels, Cheap

Most teams struggled to find quality sponsorship in 1970. Even top drivers carried an ever-revolving string of local sponsors on their cars. Johnny Halford's team (car #57 at left) stated their need for all to see at Daytona.

"We went to Daytona with RC Cola of Roanoke on our car. And for that they gave us two cases of RC," Jabe Thomas recalls. "We went to Darlington, and had Nolan's Restaurant on the car, and for that (sponsorship) they gave us two hot dogs but we had to buy our own drinks!"

"We'd run a really high gear in the car there," Jabe Thomas relates. "It'd turn 6,200 rpms with a real high gear in it, 180 miles per hour, lap after lap. I remember just riding around in the Daytona 500, figuring up my income taxes during the race. Just 180 miles per hour, lap after lap," he adds.

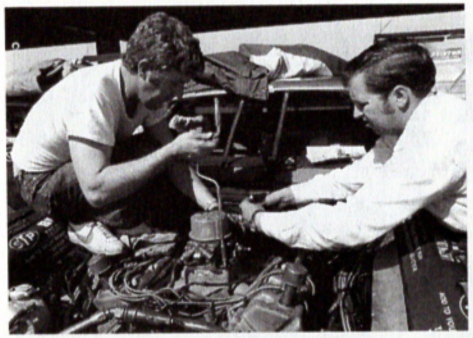
Massachusetts driver Pete Hamilton, a lanky young man with blonde wavy hair had been selected to drive a second Petty Enterprises Plymouth Superbird in major events on the 1970 schedule. Hamilton had won the 1968 Rookie of the Year title, but lost his ride in 1969 when his car owner left the series. Richard Petty's Superbird lost its engine after only seven laps. Behind the pit wall, the question that had been on the lips of every motorsports writer that week would finally be answered. "Would Richard Petty take over Hamilton's #40 Superbird to finish the 500?" As reporters gathered around the King for an answer, Petty snapped, "No, this is my car. That's his car!"



As the blown engine is hoisted out of Richard Petty's Superbird (l), Pete Hamilton (r, #40) stays steady and wins one for his employer. Here he gets by Charlie Glotzbach (#99), who finished 4th. The winner's check was $44,850.

Hamilton ran in the front pack during much of the race, and when a late caution occured on lap 187, Crew Chief Maurice Petty elected to put four fresh tires on the car. The strategy paid off as Hamilton's car stuck to the high side and skated around David Pearson, who was slipping and sliding following his two tire stop. Pearson mounted a final charge with two laps to go, but his car again bobbled and Hamilton sped away easily, winning by three car lengths.

The tour moved to Richmond Fairgrounds Raceway for race five, where James Harvey Hylton earned his first career win. It was the



Like most independent drivers in 1970, James Hylton (l) performed much of his own mechanical work.

first NASCAR Grand National win by an independent driver in two years. Hylton, who performed much of his own mechanical work, overcame a six-lap deficit in motoring to victory. It was his first start in a Ford after switching from Dodge rides. He had bought the car, a short-track Ford, from David Pearson prior to the season's beginning. Richard Petty showed up with a powerful car but lost several laps while his crew chased down electrical gremlins. In spite of his difficulties, the lanky Randleman, North Carolina driver began reeling Hylton's Ford in fast. With 23 laps to go, a Hylton crewman held up a pitboard that read, "PRAY." Though Petty was closing fast, Hylton still managed to win by nearly half-a-lap.

A week later, oddities in the solar system provided a harbinger of what kind of weekend could be expected on the race track. At North Carolina Motor Speedway, Saturday qualifying took place during a solar eclipse. Driver Earl Brooks made his qualifying run during the height of the eclipse, the resulting shadow darkening the earth during his run.

The next day, Richard Petty got his long-awaited due as his Plymouth Superbird rattled across the finish line first despite tangling with Cale Yarborough in the waning laps. Petty's car clipped Bobby Isaac's, then slipped into the path of Yarborough's Mercury at the pit road entrance. Petty's car came to a rest on pit road, the engine stalled. After a quick push from a rival crew, Petty reached his pit, received service and sped away, winning the race by more than three laps. For the Randleman, North Carolina driver, it was his first victory of the season. By virtue of his sixth place finish, Dave Marcis left Rockingham with the points lead.

Petty won again at Savannah, shaving Marcis' point lead to just two. A new NASCAR technical rule also went into effect, outlawing side windows in GN cars. New rules mandated the driver's window to have an approved mesh screen in place, in lieu of the window.

The series then moved on to Atlanta, where sheets of rain

Buddy Baker: NASCAR's First 200 mph Man

On March 24, 1970, Buddy Baker drove a pale blue #88 Dodge Charger Daytona onto the banks at Alabama International Motor Speedway. The car was owned by the Chrysler Corporation, and used for testing.

Baker was there to test transmission reliability for Chrysler, but NASCAR timers were on hand anyway, following a hunch that Baker might set a record in the car. On the 30th lap, he did, breaking 200 mph. His best lap of the day wound up being 200.447 mph!

The mark only lasted until the end of the season, when Bobby Isaac and the K&K Dodge team headed to Talladega and ran over 201 mph.

washed out the race. Due to an off-week in the schedule, the inclement weather only postponed racing action one week. During the rain delay weekend, Chrysler engineers arrived at the track and had each team install safety cables inside the spoilers of Daytonas and Superbirds. The cable ran down the rear stabilizers and was anchored to the rear fenders "just in case."

ATLANTA 500
MARCH 22
OFFICIAL PACE CAR

The Pace Car has the date March 22nd painted on it's fender, but heavy rains pushed the Atlanta 500 back to March 29th.

On March 29th, the Atlanta 500 finally got the green flag. Buddy Baker's record speed run at Talladega had been the buzz in the garage area all weekend, but this day would belong to another driver. Late in the race, Bobby Allison found himself a lap down with just ten to go. Good fortune fell his way, however, when brother Donnie's engine blew and brought out the yellow- just as leader Cale Yarborough was on pit road for a final fuel splash. Bobby Allison darted back onto the lead lap and then pitted for fresh right side tires. With five laps left, the green flew and Allison zoomed past Yarborough and into the lead. He went on to win by about five car lengths. Richard Petty took over the points lead with his fifth place finish, and former leader Dave Marcis crashed out on lap 119. Bobby Allison also usurped Marcis in the standings, 26 points behind Petty.

The following week at Bristol, a member of the Allison family again stood in victory lane at race end, but not without some good-natured jabs delivered during the event. Jabe Thomas had rented his second car to Bobby Allison. Allison had agreed to share his winnings with Thomas' team 50/50. When Donnie Allison took the lead, Thomas wheeled his #25 '69 Plymouth down pit road, stopping in Donnie's pit stall. "I pulled in to Donnie's pit and hollered, How much will you pay me not to put Donnie into the wall?" The next time around, Matthews held up a pit board that read "Fifty cents." Jabe brought his car back down pit road, stopped in Donnie's pit stall and extended his arm out the window, hand open. "By grab, he hustled down in his pockets and he gave everything he had. I think it was like $1.56 or so. He came up with it, so I went on then," Thomas jokes. Donnie wound up first across the line. Brother Bobby finished second, three full laps down. Finishing in a distant third place was Cale Yarborough, who led much of the way but blew up with 44 laps to go. Jabe Thomas came in twelfth.

Bobby Allison won the Atlanta 500, and followed that effort up with a second place finish at Bristol.

Action during the 1970 Alabama 500, at Talladega.

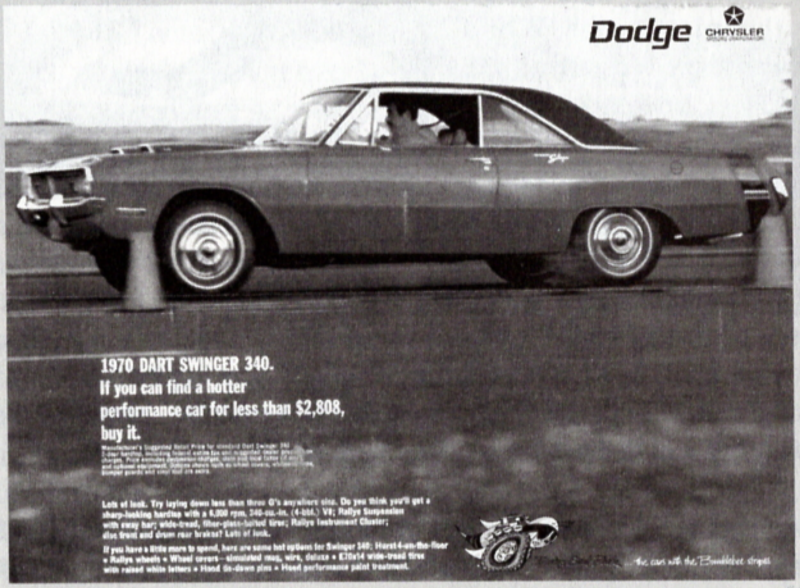
At Alabama International Motor Speedway, young Pete

Hamilton continued to turn heads in his Petty Enterprises Plymouth. Hamilton and the Petty crew devised a plan in which the driver of car number forty would protect his car early on. "Our plan was to sit back early in the race and get an idea of what tire problems there might be. Once we found out tires weren't going to be a problem, we upped our pace," Hamilton said later. For Pete Hamilton, he had run in five races so far, never finishing out of the top five, and winning two!

A Goodyear technician studies a shredded tire taken from Buddy Baker's car during Alabama 500 practice. Tires were carefully monitored because of the concerns voiced the previous year, when the drivers refused to race.

The race went off without a hitch, unlike the controversy of the previous year. Absent from the race were cars owned by Junior Johnson and Banjo Matthews, the two teams electing to skip the race over speed issues. There were only six cautions however, and the ABC Television network broadcast part of the race live, something no network had done since 1960.

The only scares in the race proved to be a fire in race leader Buddy Baker's car (caused by a cut tire), and a disappointing situation involving Cale Yarborough. An object hit his windshield as he raced along the back stretch. The impact shattered the glass windshield of


Dodge
CHRYSLER
1970 DART SWINGER 340.
If you can find a hotter performance car for less than $2,808, buy it.

The Value Of Seventies Muscle

Street versions of most of the cars that were raced in 1970 were in the $3,000-$4,000 range, MSRP. The advertisement pictured above offered a Dodge Dart Swinger. Chrysler created the "Dodge Scat Pack" line of high performance cars, as well as the Plymouth "Rapid Transit System."

So how about a NASCAR Grand National stock car? "New Superbirds, race-ready were about $38,000," Neil Castles says. "The way I got my first Dodge Daytona was, I had a Charger 500- I got a wing and a nose from Chrysler and put it on the car." Jabe Thomas purchased his cars used. "I went to Holman-Moody in Charlotte and bought a car off of them race-ready, and I mean race-ready...for $4,000. In 1969 when Richard Petty went to Ford, we bought two of his Plymouths for $8,000 each."

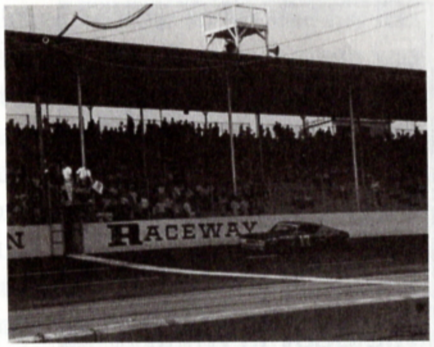
Pete Hamilton continued his mastery of large tracks by winning the Alabama 500.

the car and sent Yarborough to the pits. The Wood Brothers crew removed the shards of broken glass and Yarborough ran ten more laps without a windshield while his crew scrambled to find another one. "I had to cover my nose and mouth with one hand so I could breath," Cale lamented. The Wood Brothers crew located a replacement and brought the #21 car back in. In under two minutes, they had the new glass installed and their driver back in the race!

Race number eleven at North Wilkesboro was televised on ABC's Wide World of Sports. Richard Petty won handily, beating up on the field by leading the final 348 of 400 laps. The lone lead change happened on lap 52 when Petty swung his Plymouth around Bobby Isaac's Dodge. Unfortunately, live television coverage had not been picked up yet, and the TV audience was relegated to watching Petty circle the track with most of the field a lap or more down. With his win, Petty left North Wilkesboro still owning the points lead, with Bobby Isaac 52 points behind.

The series moved on to Columbia Speedway, where Richard Petty again earned the victory, this time in a car borrowed from Don Robertson.

The thirteenth race proved unlucky for Petty Enterprises however, as the Lady in Black got her man. Petty had wrecked his primary car during practice, forcing his crew to roll out a back up car, which was built for short tracks. Temperatures were so hot that a band member performing in the pre-race show collapsed and had to be carted off in an ambulance. During the race, on lap 176, Petty brushed the outer wall, then slammed into the inside wall head on, flipping several times. The impact tore a sizeable chunk of concrete away from the inner wall. Petty was taken to the hospital and diagnosed as having a broken shoulder. Though Petty left Darlington still clinging to the points lead over Bobby Isaac, the incident would force him to the sidelines for the next several races while his body healed. David Pearson went on to take the checkers in the Rebel 400.



Pearson brings his Holman-Moody Ford across the line first at Darlington.

On May 11th, Filmways, Inc., an entertainment conglomerate from Beverly Hills, California, announced that they would be closing their track, Sears Point International Raceway, due to financial constraints. The track had failed to attract any frontline races, unable to compete against the likes of its West Coast rivals Riverside and Laguna Seca.

Races fourteen and fifteen were short trackers at Beltsville and Langley, respectively. Each of the races were completed in less than ninety minutes. "I had some old used tires at Beltsville," Jabe Thomas says. "Harry Hyde told me he'd give me a set of new tires for them. I said, Sure, and he gave me the brand new tires, and I gave him my

The Body In White

In 1970, stock cars still began their lives on assembly lines, built as family passenger cars. Teams would begin building cars from a "body in white," a plain white chassis and interior, minus the suspension and engine.

"I'd sell the older cars I had, go to Detroit and get a body in white," Neil Castles (pictured above) says. "Then I'd just build it myself. If Cotton Owens or somebody like that had a car they weren't running, I'd run down there and just buy it and drive it myself.

"Nichels was building a lot of cars, right outside of Chicago in Highland, Indiana. They built complete rolling cars for a lot of the teams."

old ones. The old tires I'd had turned out to be a hot tip, and they (the K&K Dodge team) won the race there. They went from there down to Langley Speedway, and won there too! I was real smart, huh?" Thomas says with a hearty laugh. In fact, Bobby Isaac did win both races, and Bobby Allison and James Hylton both came away with top fives in each event, causing quite a shakeup in the points chase.

The World 600 at Charlotte appeared next on the schedule, and Fred Lorenzen, "the Elmhurst Express" returned to racing after a three-year, self-imposed sabbatical. Actor Steve McQueen ("Wanted Dead or Alive," "The Getaway" and "LeMans" among his credits) had also made a bid to enter the race, but his insurance company forbid him to do so. "Golden Boy" Lorenzen led the race near the midway point, but his engine blew, ending his day.

Donnie Allison inherited the race lead, but the floorboard of his car had become so hot that his feet were blistering. He needed relief, bad. LeeRoy Yarbrough was available due to the clutch failure of his own car, but could he be reached in time? He was already in street clothes, walking purposefully toward a waiting helicopter. A crewman was able to reach LeeRoy just in time, and the fast track wizard quickly ducked into a men's room, donned his racing suit and made a beeline for the Banjo Matthews pit. Yarbrough climbed aboard the #27 Ford on lap 355 and kept the car at the front to the end. Painted beneath Allison's name over the door of the car was the nickname "Roger Ramjet."

Bobby Isaac widened his point lead by picking up the next two races, at the Smokey Mountain Raceway and in the rain-shortened Virginia 500 at Martinsville.

With two straight wins, Bobby Isaac had his sights set on a championship.

Race nineteen was held at Michigan, where Richard Petty would be making his return to the cockpit following his episode involving the Darlington wall nearly a month earlier. Petty was now virtually out of contention for the season title, and still favored his injured arm.

Unfortunately, the scoring of the event turned into a heated fiasco. Cale Yarborough was flagged as the winner of the event ahead of Pete Hamilton, but at one time he

was being shown two laps down. Did he make up the two laps? Not according to several drivers. Hamilton claimed he was at least a lap ahead of Yarborough. Dick Hutcherson, Crew Chief of David Pearson's Holman-Moody Ford, even filed a protest with 28 laps to go. And Yarborough himself was surprised. "I had to laugh. I knew somebody sure had something fouled up," he said. Three days later, the win was upheld by NASCAR, to the dismay of many drivers.

MERCURY CYCLONE
21
60 MINUTE CLEANERS
UNION

"Who's on first? What's on second?" When the smoke settled, Cale Yarborough was on top at Michigan. NASCAR officials didn't have the luxury of electronic scoring equipment in 1970.

At Riverside, Richard Petty got his groove back, smiting the field with a dominant performance. Petty led all but four laps of the event. James Hylton's third place finish put him hot on the heels of points leader Bobby Isaac, whose lead was trimmed to just a single point.

Isaac got some sorely needed breathing room by winning the next event at Hickory on June 20th. Six days later Hylton closed the gap right back again by finishing second to Richard Petty at Kingsport Speedway. A brush with the wall relegated Bobby Isaac to an eighth place finish.

The next day, NASCAR Grand National drivers were competing on the newly paved surface at Greenville-Pickens. Bobby Isaac won, retaining his slim points lead over James Hylton, who finished fourth. Quietly, Hueytown, Alabama driver Bobby Allison was beginning to make a steady climb through the title standings. That same day, it was announced that the Lone Star 400, scheduled for Texas International Speedway, was cancelled. A Goodyear tire strike and tensions between NASCAR and American Raceways (owners of the Texas track) were cited as the reasons for its removal. This brought the schedule down to 48 races total.

At Daytona, Donnie Allison took the Firecracker 400 race after leader David Pearson's right front tire exploded into pieces. Pearson had run over a piece of debris. Allison's car was powered by an engine that car owner Banjo Matthews had borrowed from Junior Johnson. "This car has taken in $100,000, but it's not worth ten cents," Matthews quipped. Bobby Isaac scooted away with a scant four point lead over James Hylton as the series headed for Malta, New York.

Pete Hamilton, already out of the Firecracker 400 due to a faulty ignition, helps push boss Richard Petty back to the garage when the #43's engine let go on lap 139.

The aftermath of Pearson's blowout (l). The tire's mangled cords literally sliced the right front fender to pieces at 190 mph. At right, Banjo Matthews (wearing glasses) celebrates the Firecracker 400 win with his driver, Donnie Allison.

James Hylton

James Hylton had only a couple of days to enjoy his newfound points lead.

Just three days after the Firecracker 400 race, factory driver Bobby Isaac saw the points lead fall to independent driver James Hylton. Though Isaac's K&K Dodge sat on the pole at Malta, mechanical problems kept him from finishing any better than seventeenth, 36 laps down to winner Richard Petty. While Hylton was taking over the points lead, other independent drivers continued to try to hammer their point home about the prize scale. James Cox parked his car on the second lap, pocketing $200. Neil "Soapy" Castles completed 243 laps en route to a fourth place finish, yet only received $350.

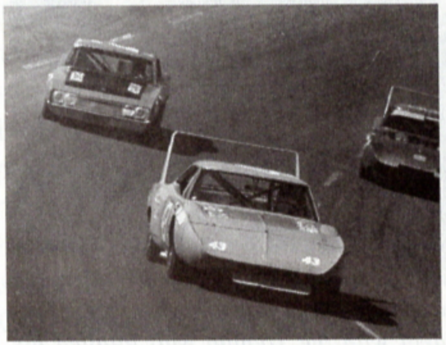
James Hylton had only two days to enjoy his status as NASCAR Grand National points leader. On July 9th at Thompson Speedway, Isaac's Dodge won from the pole and placed him in a dead heat for the title with Hylton.

Three days later (yes, that's four races in eight days if you're scoring at home!) Richard Petty took the checkers at Trenton, New Jersey. The seesaw points battle between Bobby Isaac and James Hylton finally swung Hylton's way as the K&K Dodge's engine blew with 30 laps remaining in the event. Hylton finished in fifth, and left Trenton with a 28-point lead over Isaac. Driver Wendell Scott crashed hard in qualifying for the event, leaving his future in jeopardy as his blood-red Ford was badly damaged. "It's my only ride," Scott said sadly. To his delight however, longtime friend Earl Brooks loaned Scott his own car to drive in the event; Don Robertson and Jabe Thomas wound up putting Scott in one of their Plymouths for the next several races. It turned out to be September before Scott was able to campaign his own car again.

Wendell Scott walks away from his crumpled Ford, the disgust evident on his face. This incident with the Trenton wall totalled his only ride.

Finally, the drivers had a full week until the next event, which was held at Bristol. The blinding heat sent many drivers scrambling for relief. Donnie Allison was able to return a favor owed LeeRoy Yarbrough (Yarbrough subbed for Allison and won at Charlotte in May) by climbing through the window for LeeRoy and finishing second. Meanwhile, Donnie's brother Bobby continued his quiet charge in the points hunt by winning the race. He had asked Dave Marcis to drive the final 130 laps for him, due to the brutal heat.

Back to the Smokey Mountain Raceway in Maryville, where Richard Petty nipped Bobby Isaac to win one of the closest races of the season on July 24th. James Hylton's points lead was now down to ten, and the very next day, he lost it with an early crash- on July 25th at Nashville. Bobby Isaac won the race and regained the points lead in handy fashion. The race was televised live by ABC Sports, as part of their NASCAR package.


Richard Petty and his Superbird were untouchable at Atlanta.

A week later, Richard Petty lapped the field en route to a convincing win at Atlanta. Out of the final 204 laps, Petty led 200 of them. James Hylton snatched the points lead back from Isaac when the K&K driver's engine let go early in the race.

Isaac bounced back later that same week by winning on the dirt at Columbia Speedway. Richard Petty took the ensuing race at Ona, West Virginia, with James Hylton finishing second. His point lead was now 31 over Isaac. On to Michigan, where Charlie Glotzbach earned the victory, winning under caution. Bobby Allison finished second. The race featured re-formulated restrictor plates that had smaller venturi openings. The new plates created a 5 mph drop in speeds based on the previous NASCAR Grand National race held at Michigan just two months earlier.

On August 23rd, Pete Hamilton continued his dominance of the big tracks, sweeping the second race of the year at Alabama International. Hamilton led all but 35 laps in the Talladega 500. Bobby Isaac brought his red-orange K&K Dodge home in second, allowing him to retake the points lead over James Hylton.

Pete Hamilton's brilliance on the big tracks was once again evidenced at Talladega, Alabama. The young Petty Enterprises driver captured the Daytona 500 and both races at Alabama International that year.

From the biggest and fastest, to the shortest and slowest. After leaving Talladega, the NASCAR Grand National series landed at Bowman-Gray Stadium where Richard Petty out-dueled Bobby Allison for the win. Bobby Isaac was able to stretch his points lead by a whopping single point over James Hylton, who finished right behind him in the race. It was beginning to look like things wouldn't be settled until the season-ender at

Langley.

Petty went on to win the next event as well, a quick hundred-miler at South Boston.

Buddy Baker hit paydirt the following week by winning a crown jewel- the Southern 500 at Darlington Raceway. Following in the footsteps of his father Buck, who won the race three times during his career, Buddy Baker put car owner Cotton Owens in victory lane for the first time all year.

Buddy Baker fended off a late race charge by Cale Yarborough to win the Southern 500. Yarborough spun with 36 laps to go.

Bobby Isaac took the win at Hickory just four days later. Thanks to James Hylton's eighth place finish, Isaac's lead now had a 39-point cushion. The Buddy Shuman Memorial at Hickory had been the 39th race of the season. Two days later, the field ran at Richmond Fairgrounds, and Richard Petty notched the win, drubbing the field by two laps. Isaac stayed steady, finishing fourth and further padding his lead.

From Richmond the series moved on to Dover Downs, where Richard Petty's hot streak continued. The King collected his fifth victory out of the previous eleven races.

The next race proved to be historic. Staged at the State Fairgrounds Speedway at Raleigh, North Carolina, it was the last NASCAR Grand National event held on dirt. For the second time in 1970, Richard Petty borrowed a ride from owner Don Robertson and landed it in the winner's circle, his third straight victory. Isaac and Hylton finished third and fourth, respectively, keeping the points battle close with just six races to go.

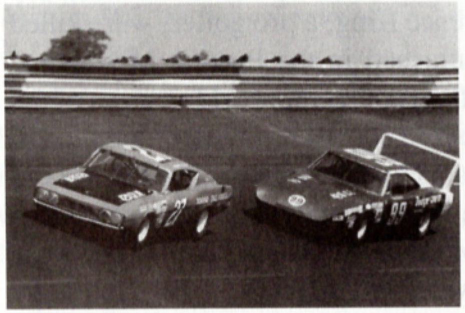
At North Wilkesboro, Bobby Isaac attempted to put an end to Petty's string. The pair battled close throughout the race, swapping the lead back and forth. In the final stanza of the race, Isaac lost a lap when the team's jack sank in the pavement under the weight of the car. The K&K driver quickly earned his lap back and pitted for fresh tires under a late caution. The red-orange #71 Dodge squirted around Petty's Carolina blue Plymouth with 12 laps left. Isaac held on for the win, with Petty settling for second. The victory put Isaac 50 points ahead of rival James Hylton in the points chase. The same day Isaac stood tall at North Wilkesboro, legendary driver Curtis Turner, along with friend Clarence King, a pro golfer, were killed when Turner's private plane crashed in the Pocono Mountains. Turner's tragic death cast a pall on the racing world as news of the air crash spread.

The National 500 at Charlotte the following weekend effectively put Hylton out of contention for the title. On lap 126, Hylton's car got caught up in an altercation with Jim Vandiver and Dr. Don Tarr. The three cars started the melee in turn two and wound up crumpled, resting on the back stretch. 1969 sensation LeeRoy Yarbrough visited victory lane for the first time all season, while Bobby Allison's second place effort catapulted him past Hylton in the standings. Bobby

Isaac finished fifth to keep himself firmly entrenched at the front.

Tensions between the independent drivers and some track owners finally brewed to a head at Martinsville Speedway. One by one, the independent drivers parked their cars and left the race, in disdain for the additional $10,000 in prize money that the track had posted for the top qualifiers. A majority of the money found its way into the pockets of factory-backed teams. James Hylton's eighth place finish only earned him $925, while Benny Parsons ninth place showing payed $1,400. At least a dozen drivers pulled their cars off the track during the race, leaving only ten cars running when the checkered flag fell. Richard Petty bagged the easy victory.

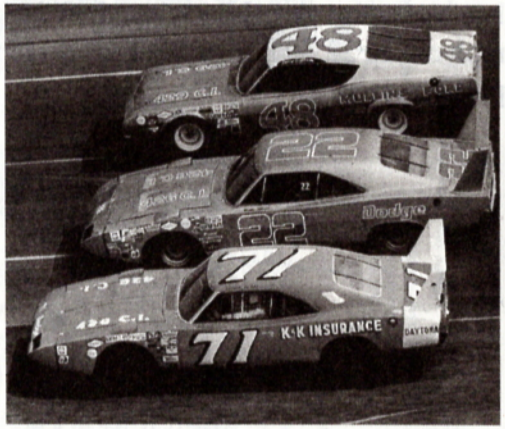
Things calmed down somewhat at Middle Georgia Raceway in Macon. There was a rare three-week gap in the schedule between races, and a crowd of 6,500 spectators watched Richard Petty earn his 18th first-place trophy of the season. Bobby Isaac soldiered his car home in second, with Bobby Allison two spaces back in fourth.



Donnie Allison (#27) locks up in an early duel with Charlie Glotzbach (#99) at Rockingham. Allison finished 4th, but Glotzbach's engine blew, putting him out on lap 324.

It was now mid-November, and Cale Yarborough flexed his muscles at Rockingham. Fighting off David Pearson's late charge, Yarborough managed to build a four-second lead and grab the win. Away from the jubilant crowd gathered in victory lane, however, there was another celebration unfolding. Bobby Isaac had laid back and finished seventh, capturing the 1970 NASCAR Grand National Championship. "I hate to stroke, but it's been worth it," the Catawba, North Carolina driver beamed.

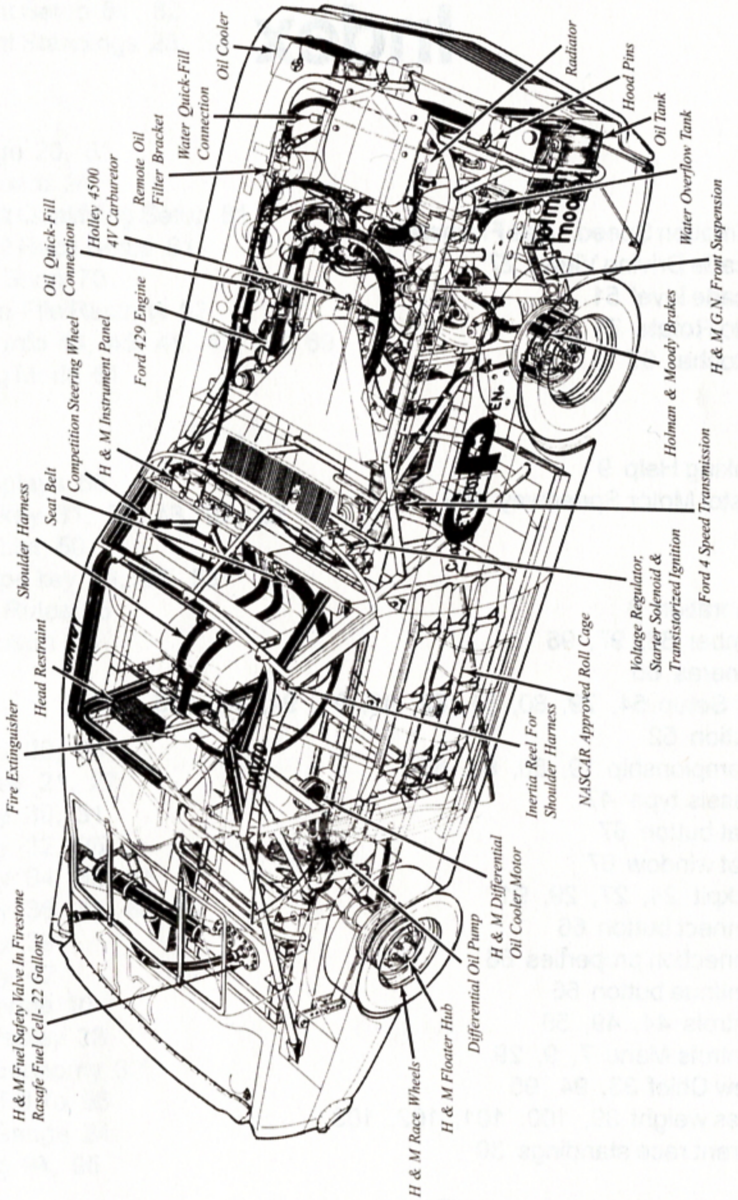
The season finale at Langley Field Speedway was won by Bobby Allison, securing his position as points runner-up for the 1970 season. Benny Parsons finished second in the race, with young gun Pete Hamilton finishing third in Dick Brooks' Plymouth. The final season standings had Isaac at the top, Allison 51 points behind in second, Hylton third, Petty fourth and Neil "Soapy" Castles in fifth.



One-Two-Three: Bobby Isaac (#71) became the 1970 NASCAR Grand National Champion, with Bobby Allison (#22) finishing second and James Hylton (#48) winding up third.

The landscape of stock car racing changed dramatically for 1971. Chrysler announced that they would be reducing their involvement in racing, and only sponsoring one team- Petty Enterprises. The move left NASCAR Grand National Champion Bobby Isaac without factory sponsorship with which to defend his title. Also dropped from the mix was Pete Hamilton, who had won three races in Petty Enterprises Plymouths in 1970. And, points runner-up Bobby Allison was also hit by Chrysler's move.

Two days after the season ended, Nord Krauskopf, owner of the #71 K&K Dodge driven by Isaac, dispatched his entire team to Talladega to beat Buddy Baker's speed record. Krauskopf wanted one last accolade he could thumb his nose at Chrysler with, and the stock car speed record seemed like an obtainable target. On a chilly late November day, Isaac zipped off 24 laps, his best being 201.104 mph on lap 22. All in all, four of his laps were faster than Baker's previous record.



Oil Cooler
Radiator
Hood Pins
Oil Tank
Water Overflow Tank
H & M G.N. Front Suspension
Water Quick-Fill Connection
Remote Oil Filter Bracket
Holley 4500 4V Carburetor
Oil Quick-Fill Connection
Ford 429 Engine
Holman & Moody Brakes
Competition Steering Wheel
H & M Instrument Panel
Seat Belt
Shoulder Harness
Ford 4 Speed Transmission
Voltage Regulator, Starter Solenoid & Transistorized Ignition
NASCAR Approved Roll Cage
Head Restraint
Fire Extinguisher
Inertia Reel For Shoulder Harness
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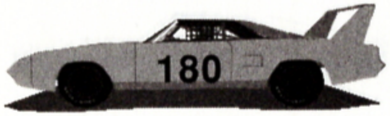

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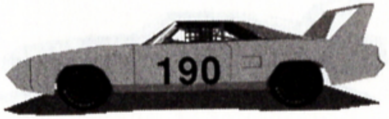

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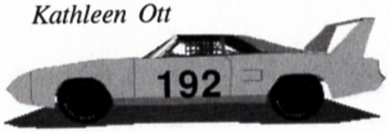

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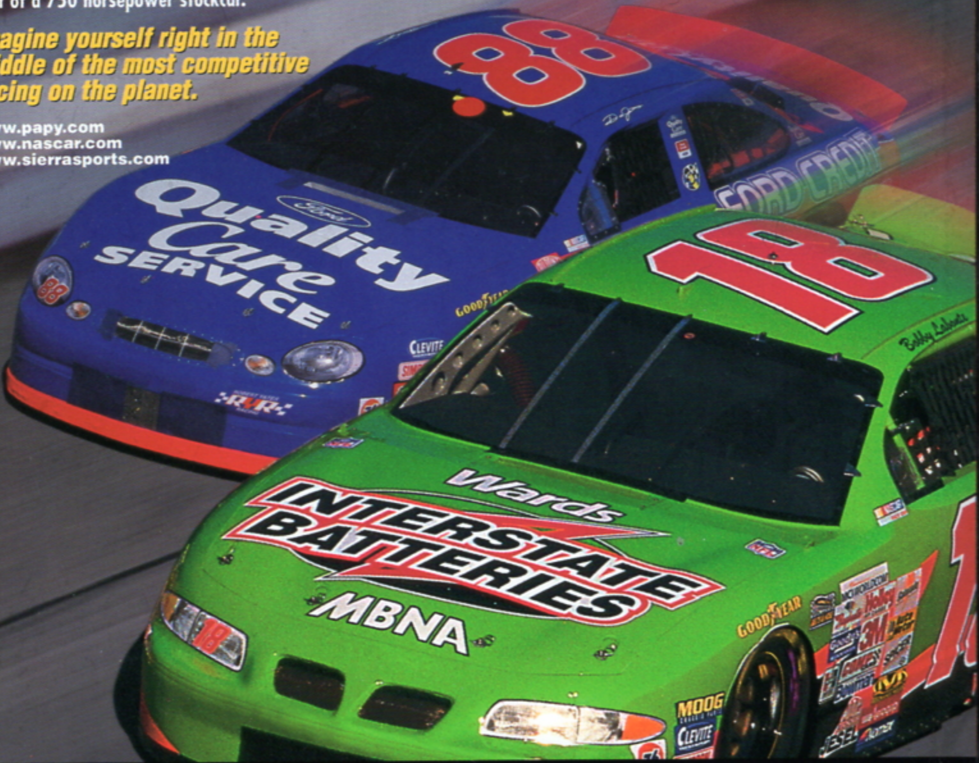

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